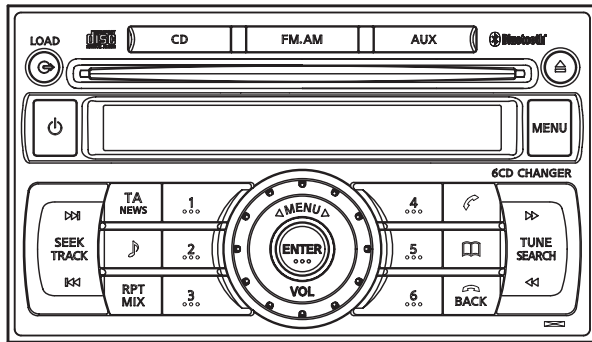


# Service Manual



## NISSAN Automobile Genuine 6CD LW/MW/FM/RDS Bluetooth Combination

**Model PN-3000P-A**  
(Genuine No.28185 9U20A)(ID No. CY03E)  
(ES color : Black)

**Model PP-3000M-A**  
(Genuine No.28184 BG00B)(ID No. CS01E)  
(ES color : Brown)

**Model PP-3000M-B**  
(Genuine No.28184 BG00A)(ID No. CS00E)  
(ES color : Black)

## NOTES

- \* As for this model, the tuner of the DSP type is used. When you exchange it due to the tuner pack(BL101;880-2091M) trouble, it is necessary to adjust for S-meter etc. Special JIG is necessary for an accurate adjustment. The procedure document for the exclusive use jig is appended to it.
- \* This system controller IC M30876FJBGP(IC402) of Main PWB does not have program. Please use special JIG at the time of IC ex-change to write the memory.
- \* This DSP IC SAF7730HV/N317(IC301) of Main PWB is exposed die soldering pad type. It cannot remove in an ordinary soldering iron. Please use special removal JIG at the time of IC ex-change
- \* The Bluetooth® word mark and logos are owned by the Bluetooth SIG, Inc. and any use of suchmarks by CLARION CO.,LTD. is under license.
- \* We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.
- \* Specifications and design are subject to change without notice for further improvement.

## SPECIFICATIONS

### Radio section

Tuning system: PLL Frequeency synthesizer system

Receive range:	LW	153kHz to 279kHz
	MW	531kHz to 1,602kHz
	FM	87.5MHz to 108.0MHz
Intermediate frequency:	LW/MW/FM	
	10.7MHz	
Quieting sensitivity:	LW	Less than 45dBu (at 20dB S/N)
	MW	Less than 32dBu (at 20dB S/N)
	FM	Less than 10dBu (at 30dB S/N)
Separation:	FM	22+5/-7dB(1kHz)
S/N ratio:	LW	More than 40dB
	MW	More than 40dB
	FM	More than 50dB
Auto tuning stop sensitivity:	LW/MW	
	40+6/-6dBu	
	FM	22+6/-6dBu

### CD section

Disc:	12cm disc
Separation:	More than 50dB (1kHz,20kHz L.P.F)
S/N ratio:	More than 74dB(JIS-A)
Distortion:	Less than 0.2%(20kHz L.P.F.)

### General

Load impedance:	4ohm/CH
Power output:	40W x4
Power supply voltage:	DC13.2V(10.8 to 15.6V)
	Negative ground
Back-up consumption:	Less than 0.3mA
Dimensions(mm):	178(W) x 100(H) x 164(D)
Weight:	2.3kg

# To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.  
The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.  
The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.  
For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.  
If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.
3. Check for safety after repair.  
Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.  
If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.  
Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
5. Cautions in soldering  
Please do not spread liquid flux in soldering.  
Please do not wash the soldering point after soldering.
6. Cautions in soldering for chip capacitors  
Please solder the chip capacitors after pre-heating for replacement because they are very weak to heat.  
Please do not heat the chip capacitors with a soldering iron directly.
7. Cautions in handling for chip parts.  
Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc).  
Please make an operation test after replacement.
8. Cautions in handling flexible PWB  
Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.
9. Turn the unit OFF during disassembly and parts replacement.  
Recheck all work before you apply power to the unit.

10. Cautions in checking that the optical pickup lights up.  
The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.
11. Cautions in handling the optical pickup  
The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.
- 11-1. Laser diode  
The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.
- 11-2. Actuator  
The actuator has a powerful magnetic circuit. If a magnetic material is put close to it. Its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.
- 11-3. Cleaning the lens  
Dust on the optical lens affects performance.  
To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

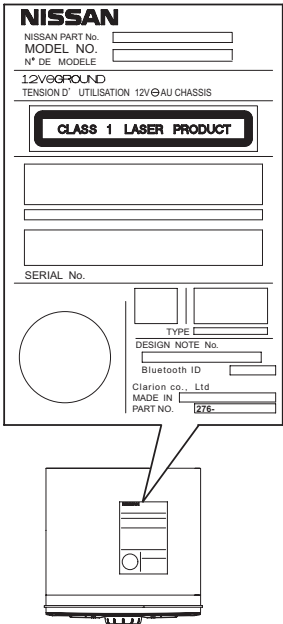
## COMPONENT

PN-3000P-A, PP-3000M-A, PP-3000M-B

1.	Main unit	-----	1
2.	Radio pass card	-----	1

## CAUTION

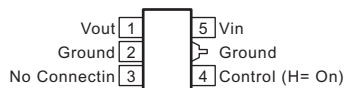
This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT". To use this model properly, read this Owner's Manual carefully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest "AUTHORIZED service station". To prevent direct exposure to the laser beam, do not to open the enclosure.



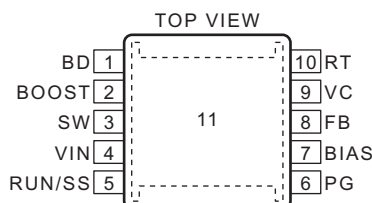
## EXPLANATION OF IC

051-3516-90 S-1132B33-U5T1G

Positive Voltage Regulator 3.3V



051-3517-90 impossible of exchange (LT3481EMSE#TRPBF)  
Step-Down Switching Regulator



### Terminal Description

#### BD (Pin 1):

This pin connects to the anode of the boost Schottky diode.

#### BOOST (Pin 2):

This pin is used to provide a drive voltage, higher than the input voltage, to the internal bipolar NPN power switch.

#### SW (Pin 3):

The SW pin is the output of the internal power switch. Connect this pin to the inductor, catch diode and boost capacitor.

#### VIN (Pin 4):

The VIN pin supplies current to the LT3481's internal regulator and to the internal power switch. This pin must be locally bypassed.

#### RUN/SS (Pin 5):

The RUN/SS pin is used to put the LT3481 in shutdown mode. Tie to ground to shut down the LT3481. Tie to 2.3V or more for normal operation. If the shutdown feature is not used, tie this pin to the VIN pin.

#### PG (Pin 6):

The PG pin is the open collector output of an internal comparator. PG remains low until the FB pin is within 10% of the final regulation voltage. PG output is valid when VIN is above 3.5V and RUN/SS is high.

#### BIAS (Pin 7):

The BIAS pin supplies the current to the LT3481's internal regulator. Tie this pin to the lowest available voltage source above 3V (typically VOUT). This architecture increases efficiency especially when the input voltage is much higher than the output.

#### FB (Pin 8):

The LT3481 regulates the FB pin to 1.265V. Connect the feedback resistor divider tap to this pin.

#### VC (Pin 9):

The VC pin is the output of the internal error amplifier. The voltage on this pin controls the peak switch current. Tie an RC network from this pin to ground to compensate the control loop.

#### RT (Pin 10):

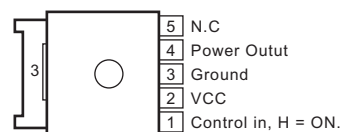
Oscillator Resistor Input. Connecting a resistor to ground from this pin sets the switching frequency.

#### Exposed Pad (Pin 11):

Ground. The Exposed Pad must be soldered to PCB.

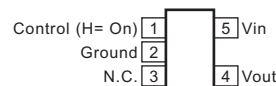
051-3518-90 NJM2846DL3-33-TE1

Positive Voltage Regulator 3.3V



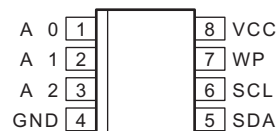
051-3519-90 NJU7771F05-TE2

Positive Voltage Regulator 5.0V



051-9425-80 S-24CS64A0I-J8T1G

EEP-ROM



### Terminal Description

pin 1: A 0	: IN: Address input.
pin 2: A 1	: IN: Address input.
pin 3: A 2	: IN: Address input.
pin 4: GND	: - : Ground.
pin 5: S DA	: I/O: Serial data input/output.
pin 6: S CK	: IN: Serial clock pulse input.
pin 7: Write Protect	: IN: Write protect signal input. H = protect ON.
pin 8: VCC	: - : Positive voltage supply.

052-0320-00 M30876FJBGP

System Contoller

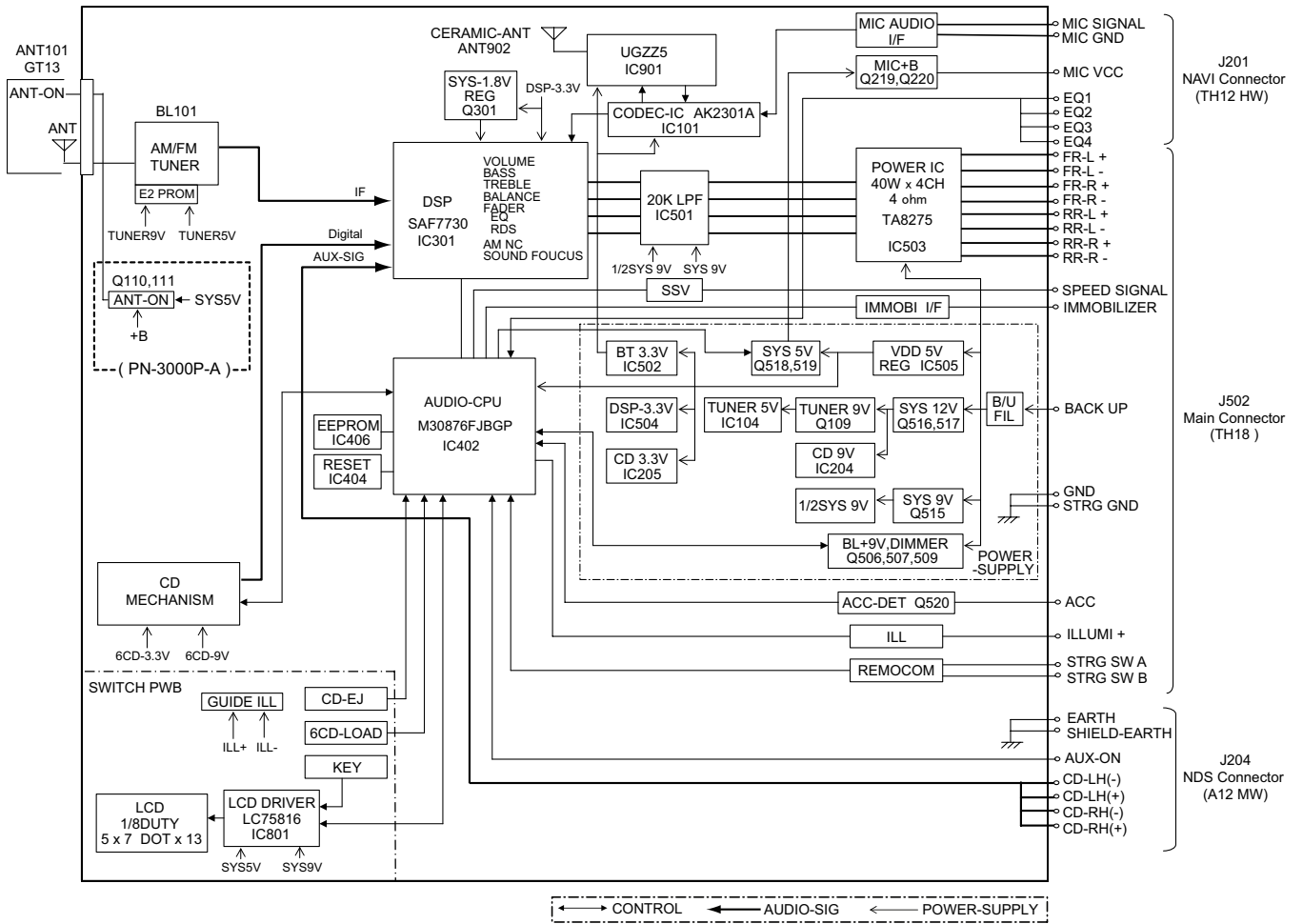
[ Note ] The program is not written in this IC. Therefore, you need to write a program in this IC with the part exchange.

### Terminal Description for PN-3000

pin 1: NU	: IN: Not in use.
pin 2: Speed Pulse	: IN: Speed pulse input.
pin 3: IMMOBI TX	: O : Serial data output for IMMOBI.
pin 4: IMMOBI RX	: IN: Serial data input for IMMOBI.
pin 5: BU DET	: IN: Backup detection signal input.
pin 6: GND	: - : Ground.
pin 7: CN VSS	: IN: Connect to VSS via a resistor.
pin 8: ILL ON	: IN: Illumination ON signal input.
pin 9: SYS ON	: O : System ON signal output.
pin 10: RESET	: IN: Reset signal input.
pin 11: X out	: O : Crystal connection.
pin 12: VSS	: - : Negative voltage supply.
pin 13: X in	: IN: Crystal connection.
pin 14: VDD	: - : Positive voltage supply.
pin 15: NMI	: IN: Nonmaskable interrupt. Connect to VDD via a resistor.

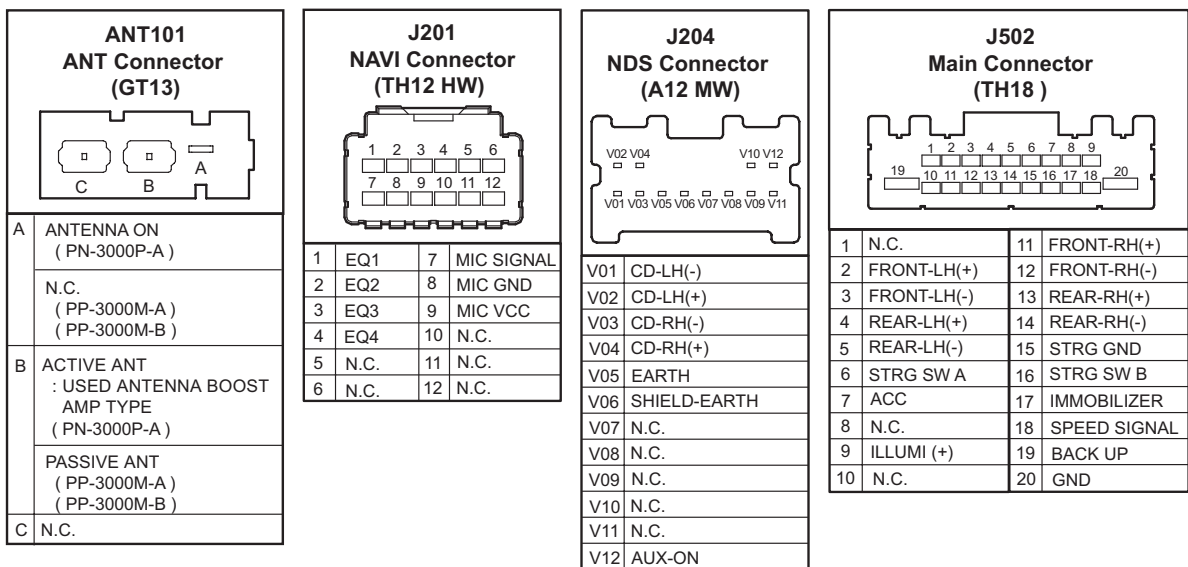
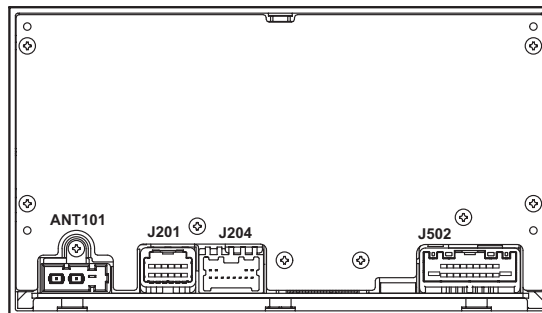
pin 16: ACC IN	: IN: ACC ON flag input.	pin 72: RDS CL 1	: IN: RDS 1 serial clock output.
pin 17: PLL DO	: O: PLL serial data output.	pin 73: RDS DA 1	: IN: RDS 1 serial data input.
pin 18: NU	: - : Not in use.	pin 74: GIX SYS ACC	: O: 6CD-mechanism system ACC control.
pin 19: B/T CTS	: IN: BT module UART flow control.	pin 75: P IC MUTE	: O: Muting-command output for the audio power IC.
pin 20: B/T RX	: IN: BT module UART data input.	pin 76: MH MUTE	: O: Muting-command output for RDS and DSP.
pin 21: TIME BASE	: IN: Time base pulse input.	pin 77: M AGC BUFF	: IN: DSP Keyed AGC detection.
pin 22: B/T TX	: O: BT module UART data output.	pin 78: DSP RESET	: O: Reset signal output to the DSP IC.
pin 23: PLL CE	: O: PLL chip enable signal output.	pin 79: MT S METER	: IN: Input of internal A/D converter to monitor the radio field strength for the Main-tuner.
pin 24: DIMMER	: O: Dimmer output.	pin 80: MT SAMPLE	: IN: Main-tuner sample input.
pin 25: PLL CK	: O: PLL clock pulse output.	pin 81: MT HOLD	: IN: AF-hold-signal input from the Main-tuner. And S-hold signal input from the DSP.
pin 26: NU	: - : Not in use.	pin 82: EQ 1	: IN: The equalizer setting input.
pin 27: DSP SCL	: O: Clock pulse output to the DSP IC.	pin 83: EQ 2	: IN: The equalizer setting input.
pin 28: DSP SDA	: I/O: Serial data input/output for the digital signal processor.	pin 84: EQ 3	: IN: The equalizer setting input.
pin 29: NDS TX	: O: Serial data output for NDS.	pin 85: EQ 4	: IN: The equalizer setting input.
pin 30: NDS RX	: IN: Serial data input for NDS.	pin 86: NU	: IN: Not in use.
pin 31: NDS REQ 1	: IN: NDS request signal input.	pin 87: CD EJECT	: IN: CD eject signal input.
pin 32: 6CD SLOT	: O: Shutter light control signal output.	pin 88: LOAD SW	: IN: LOAD switch signal input.
pin 33: 6CD SDA	: I/O: Serial data input/output.	pin 89: NU	: - : Not in use.
pin 34: 6CD SCL	: O: Serial clock output.	pin 90: NU	: - : Not in use.
pin 35: NU	: - : Not in use.	pin 91: INI KEY	: IN: Initializing command input.
pin 36: NU	: - : Not in use.	pin 92: REMO A	: IN: Steering wheel remote controller signal input.
pin 37: 6CD RESET	: O: Reset pulse output.	pin 93: REMO B	: IN: Steering wheel remote controller signal input.
pin 38: NU	: - : Not in use.	pin 94: A GND	: - : Analog ground.
pin 39: 6-CD REQ	: IN: Request signal input for the 6CD-Changer.	pin 95: NU	: - : Not in use.
pin 40: NU	: - : Not in use.	pin 96: VREFI	: IN: Reference voltage input.
pin 41: NU	: - : Not in use.	pin 97: A VCC	: - : Positive voltage supply for the internal analog section.
pin 42: NU	: IN: Not in use.	pin 98: MT SCL	: IN: Main-tuner control clock pulse.
pin 43: NU	: IN: Not in use.	pin 99: MT SDA	: I/O: Serial data input/output for the Main-tuner.
pin 44: NU	: IN: Not in use.	pin100: DSP PAUSE	: IN: DSP automatic mute control. L = mute on.
pin 45: NU	: IN: Not in use.		
pin 46: NU	: - : Not in use.		
pin 47: NU	: - : Not in use.		
pin 48: CD ON	: O: CD ON signal output.		
pin 49: NU	: - : Not in use.		
pin 50: Power IC Stndb	: O: The standby signal output to the power IC.		
pin 51: LCD DO	: O: Serial data output to the LCD controller.		
pin 52: LCD CK	: O: Clock pulse output to the LCD driver.		
pin 53: LCD DI	: IN: Serial data input from the LCD driver.		
pin 54: LCD CE	: O: Chip enable signal output to the LCD driver.		
pin 55: LCD RST	: O: Reset pulse output to the LCD driver.		
pin 56: VOL 3	: IN: Volume control pulse input from the rotary encoder.		
pin 57: VOL 2	: IN: Volume control pulse input from the rotary encoder.		
pin 58: VOL 1	: IN: Volume control pulse input from the rotary encoder.		
pin 59: FAN ON	: O: The fan on signal output.		
pin 60: VDD	: - : Positive voltage supply.		
pin 61: POWER ON	: IN: Power ON signal input.		
pin 62: GND	: - : Ground.		
pin 63: B/T TEST	: O: BT module test.		
pin 64: AUX ON	: IN: AUX ON signal input.		
pin 65: DIAG INPUT	: IN: Diagnosis signal input from the audio power IC.		
pin 66: B/T RTS	: O: BT module UART flow control. AUX connection detection.		
pin 67: B/T TEST	: O: BT module test.		
pin 68: B/T BOOTE	: O: BT module rewrite.		
pin 69: B/T RESET P	: O: BT module reset.		
pin 70: NU	: - : Not in use.		
pin 71: NU	: IN: Not in use.		

## BLOCK DIAGRAM

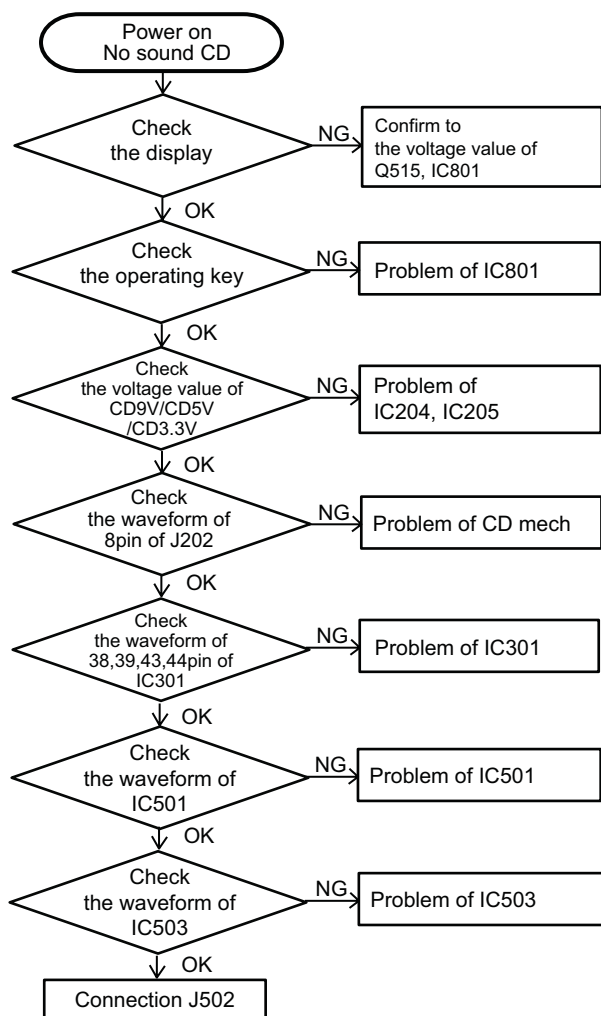
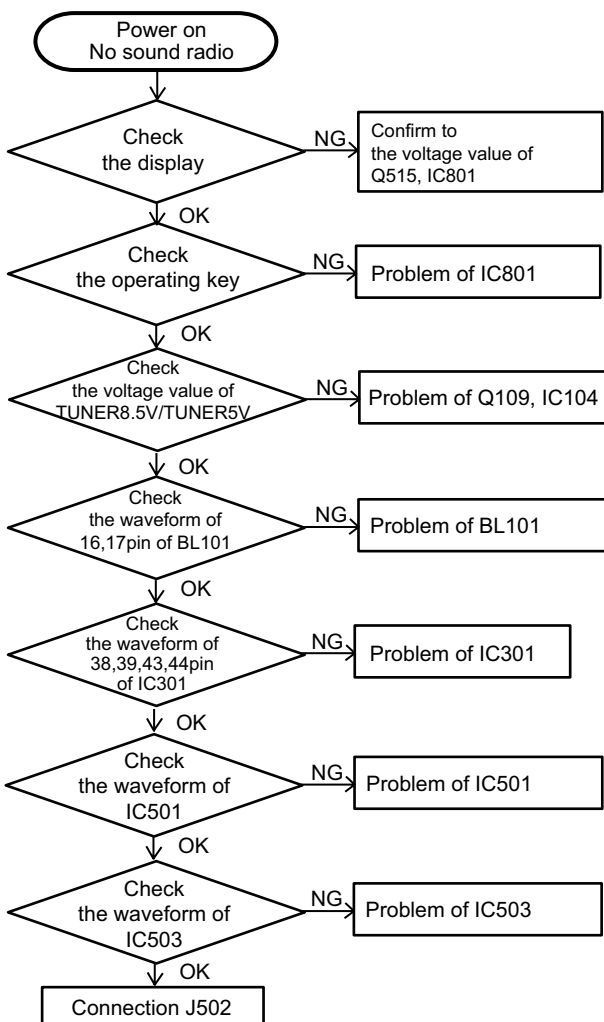
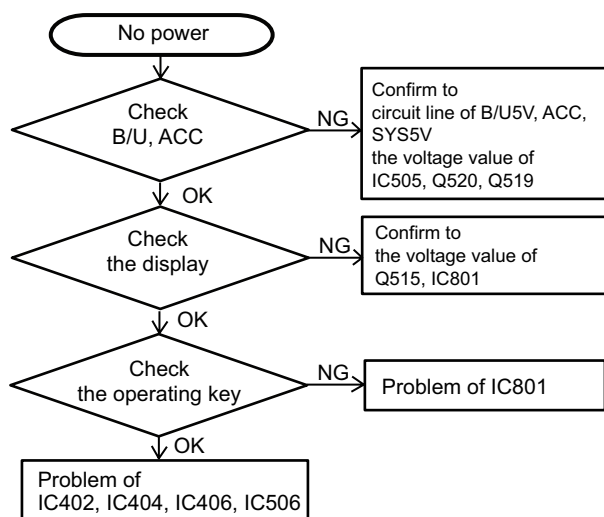


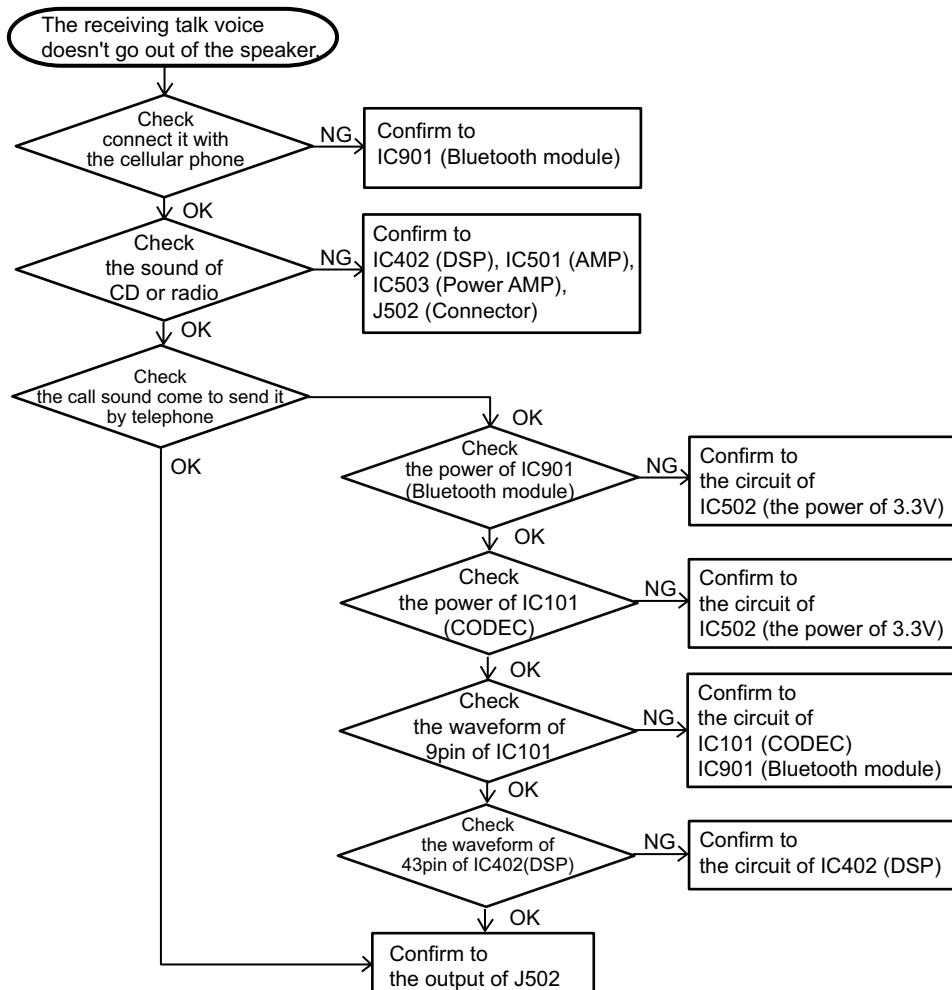
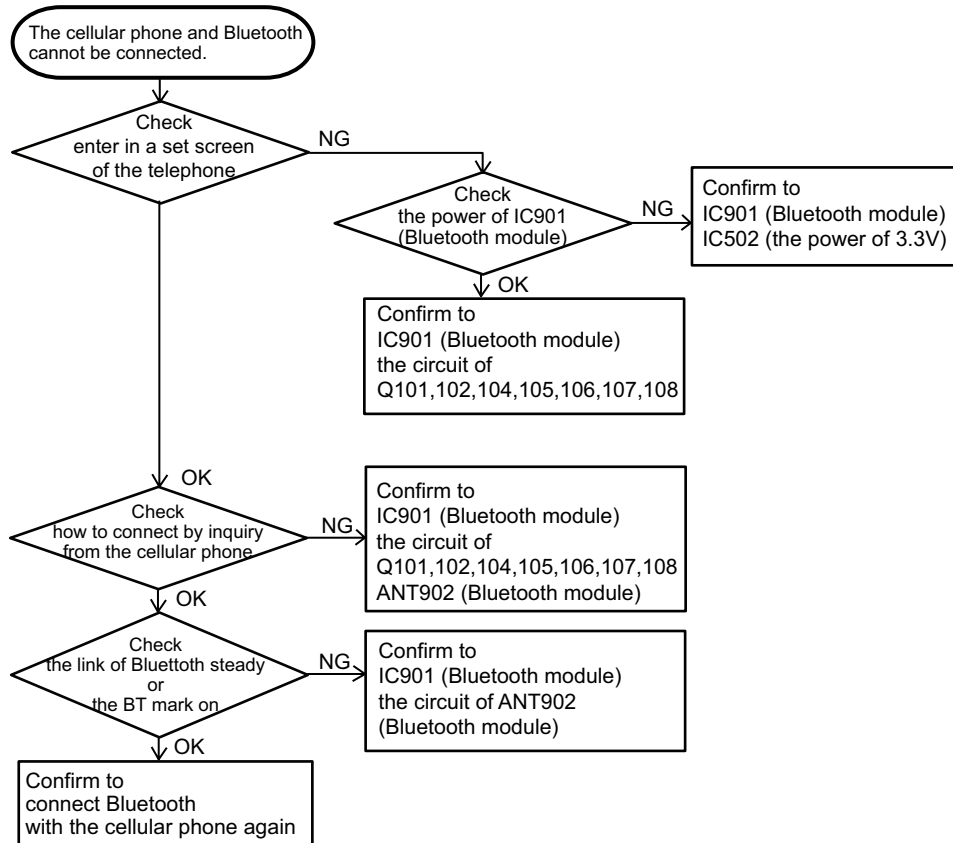
## CONNECTOR LAYOUT

### Rear view of the unit



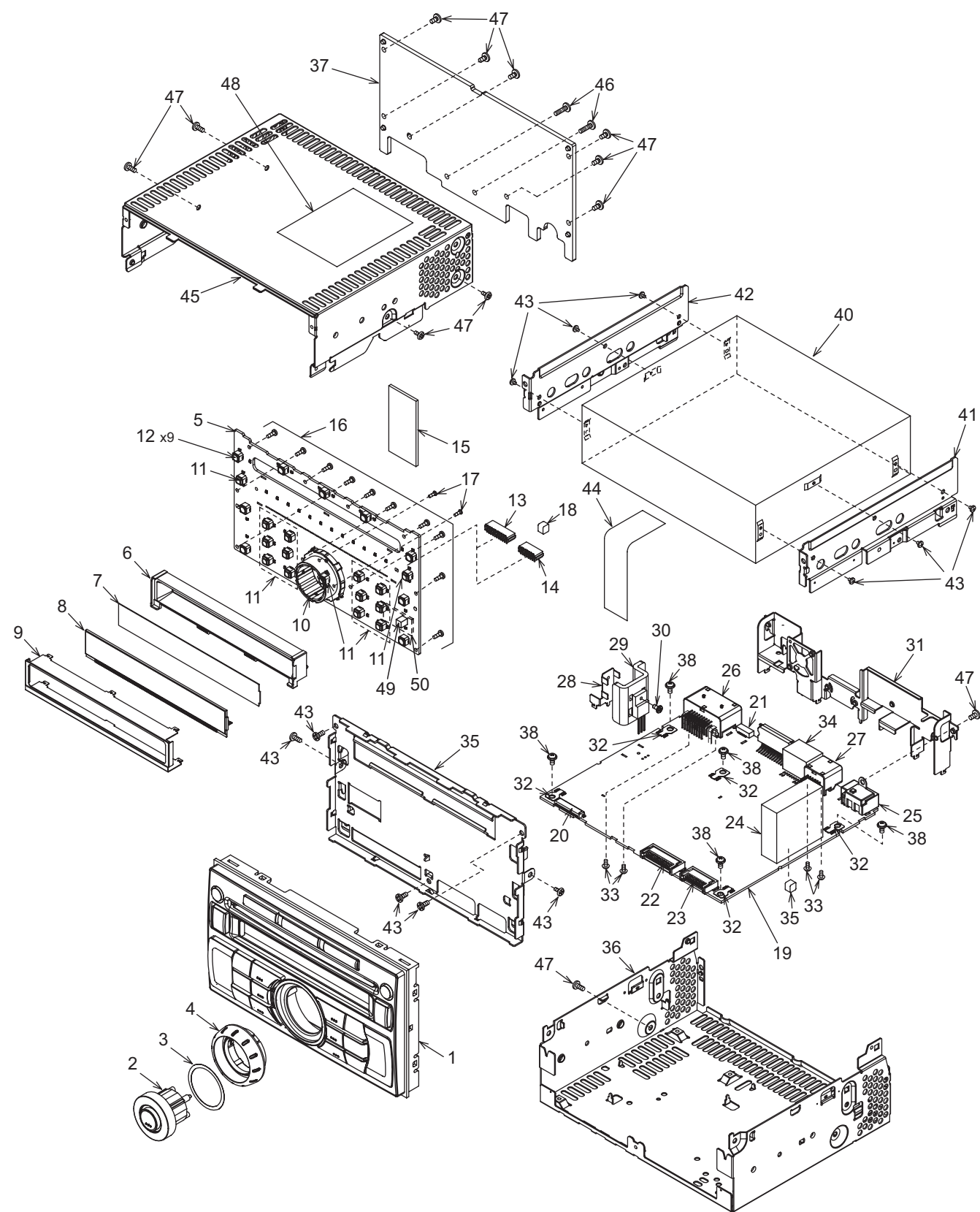
# TROUBLESHOOTING







EXPLODED VIEW/PARTS LIST





Note) Some parts depend on each model. The model name is specified in the description.

NO.	PART NO.	DESCRIPTION	Q'TY
1	940-8206-20 940-8206-21 940-8210-20	ES-ASSY (PN-3000P-A) ES-ASSY (PP-3000M-B) ES-ASSY (PP-3000M-A)	1
2	947-0591-00 947-0591-20	KNOB ASSY (PN-3000P-A)(PP-3000M-B) KNOB ASSY (PP-3000M-A)	1
3	347-7959-00	SHADE	1
4	380-5655-20	KNOB	1
5	-----	SWITCH PWB	1
6	335-7693-00	LCD HOLDER	1
7	335-7801-00	LCD LEFLECTOR	1
8	379-1392-50	INDICATOR (LCD)	1
9	331-4166-00	LCD COVER	1
10	016-7004-00	ROTARY SWITCH	1
11	013-6201-52	TACT SWITCH	15
12	013-6202-52	TACT SWITCH	9
13	074-3013-72	OUTLET SOCKET (22P)	1
14	074-3013-66	OUTLET SOCKET (16P)	1
15	345-8090-00	CUSHION RUBBER	1
16	716-0778-52	WAVE SCREW (2 x 6)	10
17	716-0872-51	PAD SCREW (M1.7 x 5)	2
18	345-5805-01	GASKET	1
19	-----	MAIN PWB	1
20	074-1237-69	OUTLET SOCKET (19P)	1
21	076-0478-59	PLUG (9P)	1
22	076-3011-72	PLUG (22P)	1
23	076-3011-66	PLUG (16P)	1
24	880-2091M	TUNER PACK	1
25	092-2210-00	ANT RECEPT	1

NO.	PART NO.	DESCRIPTION	Q'TY
26	074-4009-20	OUTLET SOCKET	1
27	074-1302-12	OUTLET SOCKET	1
28	331-3880-00	TR HOLDER	1
29	313-1967-00	HEAT SINK	1
30	716-1646-50	IT SCREW (M2.6 x 8)	1
31	307-0720-00	REAR PLATE	1
32	073-0762-90	TERMINAL	5
33	778-3006-00	SPECIAL T-SCREW (3 x 6)	4
34	074-1013-00	OUTLET SOCKET	1
35	345-5805-01	GASKET	1
36	311-1914-00	LOWER CASE	1
37	313-2030-00	HEAT SINK	1
38	716-0878-50	SCREW (M2.6 x 5)	5
39	309-0822-00	ES PLATE (6CD)	1
40	929-0390-81	CD MECH MODULE	1
41	331-4092-10	CD MECH BRKT (RH)	1
42	331-4091-10	CD MECH BRKT (LH)	1
43	716-3552-00	SCREW (M2.3 x 2.5)	6
44	816-4024-50	FLAT WIRE	1
45	310-1823-10	UPPER CASE	1
46	735-2614-1B	MACHINE SCREW (M2.6 x 14)	2
47	714-2606-8B	MACHINE SCREW (M2.6 x 6)	17
48	276-0034-55 276-0034-56 276-0034-58	SET PLATE (PP-3000M-A) SET PLATE (PP-3000M-B) SET PLATE (PN-3000P-A)	1
49	060-8062-50	CERAMIC-ANT	1
50	060-8079-90	BLUETOOTH MODULE	1

# ELECTRICAL PARTS LIST

## Switch PWB(B1) section

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
ANT902	060-8062-50	CERAMIC-ANT	D835	001-7093-91	RFY1112H-16-TR	R802	119-3331-15	1/10W 33k ohm
C802	168-1042-78	16V 0.1uF			YEL	R803	119-1021-15	1/10W 1k ohm
C803	168-1042-78	16V 0.1uF	D836	001-7093-91	RFY1112H-16-TR	R804	116-3321-15	1/4W 3.3k ohm
C804	168-4732-78	0.047uF K			YEL	R805	116-3321-15	1/4W 3.3k ohm
C805	168-4732-78	0.047uF K	D837	001-7093-91	RFY1112H-16-TR	R806	116-3321-15	1/4W 3.3k ohm
C806	168-4732-78	0.047uF K			YEL	R807	116-3321-15	1/4W 3.3k ohm
C807	166-2211-50	220pF CH	D838	001-7093-91	RFY1112H-16-TR	R808	116-3321-15	1/4W 3.3k ohm
C901	168-1042-78	16V 0.1uF			YEL	R809	116-3921-15	1/4W 3.9k ohm
C902	166-1011-50	100pF CH	D839	001-7093-91	RFY1112H-16-TR	R810	116-2421-15	1/4W 2.4k ohm
C903	168-1042-78	16V 0.1uF			YEL	R811	116-4721-15	1/4W 4.7k ohm
C904	166-1011-50	100pF CH	D846	001-7093-91	RFY1112H-16-TR	R812	116-4721-15	1/4W 4.7k ohm
C905	166-1011-50	100pF CH			YEL	R813	116-4721-15	1/4W 4.7k ohm
C906	042-0423-97	16V 10uF	D847	001-7093-91	RFY1112H-16-TR	R814	116-4721-15	1/4W 4.7k ohm
C907	168-1042-78	16V 0.1uF			YEL	R815	116-2221-15	1/4W 2.2k ohm
C908	168-1042-78	16V 0.1uF	D848	001-7093-91	RFY1112H-16-TR	R816	116-2221-15	1/4W 2.2k ohm
C909	178-3312-78	330pF			YEL	R817	119-1521-15	1/10W 1.5k ohm
CCT801	050-0145-52	1/16W 1k ohm x4	D849	001-7093-91	RFY1112H-16-TR	R819	116-3321-15	1/4W 3.3k ohm
D801	001-0529-32	MA8056-M			YEL	R822	119-2421-15	1/10W 2.4k ohm
D802	001-0529-32	MA8056-M	D850	001-7093-91	RFY1112H-16-TR	R823	116-4721-15	1/4W 4.7k ohm
D803	001-0529-32	MA8056-M			YEL	R824	119-2421-15	1/10W 2.4k ohm
D804	001-0529-32	MA8056-M	D851	001-7093-91	RFY1112H-16-TR	R825	116-4721-15	1/4W 4.7k ohm
D805	001-0529-32	MA8056-M			YEL	R826	119-2421-15	1/10W 2.4k ohm
D806	001-7093-91	RFY1112H-16-TR	D852	001-7093-91	RFY1112H-16-TR	R827	116-3921-15	1/4W 3.9k ohm
		YEL			YEL	R828	119-2421-15	1/10W 2.4k ohm
D807	001-7093-91	RFY1112H-16-TR	D853	001-7093-91	RFY1112H-16-TR	R829	116-2421-15	1/4W 2.4k ohm
		YEL			YEL	R830	119-2421-15	1/10W 2.4k ohm
D808	001-7093-91	RFY1112H-16-TR	D855	001-7093-91	RFY1112H-16-TR	R831	116-4721-15	1/4W 4.7k ohm
		YEL			YEL	R832	119-2421-15	1/10W 2.4k ohm
D809	001-7093-91	RFY1112H-16-TR	D856	001-7093-91	RFY1112H-16-TR	R833	119-1521-15	1/10W 1.5k ohm
		YEL			YEL	R905	119-2711-15	1/10W 270 ohm
D810	001-7093-91	RFY1112H-16-TR	D857	001-7093-91	RFY1112H-16-TR	R909	119-1031-15	1/10W 10k ohm
		YEL			YEL	R914	119-5631-15	1/10W 56k ohm
D811	001-7093-91	RFY1112H-16-TR	D858	001-7093-91	RFY1112H-16-TR	R916	119-1821-15	1/10W 1.8k ohm
		YEL			YEL	R917	119-2711-15	1/10W 270 ohm
D812	001-7093-91	RFY1112H-16-TR	D859	001-7093-91	RFY1112H-16-TR	R918	119-1011-15	1/10W 100 ohm
		YEL			YEL	R919	119-1011-15	1/10W 100 ohm
D813	001-7093-91	RFY1112H-16-TR	D860	001-7093-91	RFY1112H-16-TR	S801	016-7004-00	ROTARY SWITCH
		YEL			YEL	S802	013-6201-52	SKPMAP010
D814	001-7093-91	RFY1112H-16-TR	D861	001-7093-91	RFY1112H-16-TR	S803	013-6202-52	SKPMBJE010
		YEL			YEL	S804	013-6202-52	SKPMBJE010
D815	001-7093-91	RFY1112H-16-TR	D862	001-7093-91	RFY1112H-16-TR	S807	013-6202-52	SKPMBJE010
		YEL			YEL	S808	013-6201-52	SKPMAP010
D816	001-7093-91	RFY1112H-16-TR	D864	001-7093-91	RFY1112H-16-TR	S809	013-6201-52	SKPMAP010
		YEL			YEL	S810	013-6202-52	SKPMBJE010
D817	001-7093-91	RFY1112H-16-TR	D865	001-7093-91	RFY1112H-16-TR	S811	013-6202-52	SKPMBJE010
		YEL			YEL	S812	013-6202-52	SKPMBJE010
D818	001-7093-91	RFY1112H-16-TR	D866	001-7093-91	RFY1112H-16-TR	S813	013-6201-52	SKPMAP010
		YEL			YEL	S814	013-6201-52	SKPMAP010
D819	001-7093-91	RFY1112H-16-TR	D867	001-7093-91	RFY1112H-16-TR	S815	013-6202-52	SKPMBJE010
		YEL			YEL	S816	013-6202-52	SKPMBJE010
D820	001-7093-91	RFY1112H-16-TR	D869	001-7093-91	RFY1112H-16-TR	S818	013-6201-52	SKPMAP010
		YEL			YEL	S819	013-6201-52	SKPMAP010
D821	001-7093-91	RFY1112H-16-TR	D870	001-7093-91	RFY1112H-16-TR	S820	013-6201-52	SKPMAP010
		YEL			YEL	S821	013-6202-52	SKPMBJE010
D822	001-7093-91	RFY1112H-16-TR	IC801	051-6075-00	LC75816W-8722-E	S822	013-6201-52	SKPMAP010
		YEL	IC901	060-8079-90	UGZZ5-601D	S823	013-6201-52	SKPMAP010
D823	001-7093-91	RFY1112H-16-TR	J801	074-3013-72	22P	S824	013-6201-52	SKPMAP010
		YEL	J901	074-3013-66	16P	S825	013-6201-52	SKPMAP010
D824	001-7093-91	RFY1112H-16-TR	LCD801	379-1392-50	INDICATOR (LCD)	S826	013-6201-52	SKPMAP010
		YEL	L901	010-3104-54	600 ohm/100MHz	S827	013-6201-52	SKPMAP010
D830	001-7093-91	RFY1112H-16-TR	L902	010-3104-54	600 ohm/100MHz	S828	013-6201-52	SKPMAP010
		YEL	L903	010-3104-54	600 ohm/100MHz	TM901	073-0778-90	TERMINAL
D831	001-7093-91	RFY1112H-16-TR	L904	010-3104-54	600 ohm/100MHz	TM902	073-0778-90	TERMINAL
		YEL	L906	010-3104-54	600 ohm/100MHz	TM903	073-0778-90	TERMINAL
D832	001-7093-91	RFY1112H-16-TR	L907	010-3104-54	600 ohm/100MHz	TM904	073-0778-90	TERMINAL
		YEL	L909	010-3104-54	600 ohm/100MHz	PWB	039-2925-01	PWB(WITHOUT COMPONENT)
D833	001-7093-91	RFY1112H-16-TR	L910	010-3104-54	600 ohm/100MHz			
		YEL	L911	010-3104-54	600 ohm/100MHz			
D834	001-7093-91	RFY1112H-16-TR	L912	010-3104-54	600 ohm/100MHz			
		YEL	R801	119-0000-05	1/10W 0 ohm JW			

## Main PWB(B2) section

Note) Some parts depend on each model. The model name is specified in the description.

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
ANT101	092-2210-00	ANTENNA RECEPT	C318	168-1042-78	16V 0.1uF	C535	168-5632-78	16V 0.056uF
BL101	880-2091M	FM/AM TUNER	C319	168-5622-55	5600pF K	C536	168-5632-78	16V 0.056uF
C104	168-2222-55	2200pF K (PN-3000P)	C320	168-5622-55	5600pF K	C537	178-1052-78	1uF
C108	119-0000-05	1/10W 0 ohm JW	C323	168-1022-55	1000pF K	C540	163-1063-35	16V 10uF
C109	166-2201-50	22pF CH	C324	163-2273-05	4V 220uF	C541	168-1522-55	1500pF K
C110	168-1042-78	16V 0.1uF	C325	168-2222-55	2200pF K	C546	168-1042-78	16V 0.1uF
C111	178-3342-78	0.33uF	C326	166-4711-50	470pF CH	C547	178-1052-78	1uF
C112	163-4763-15	6.3V 47uF	C327	163-2263-35	16V 22uF	C549	163-2273-25	10V 220uF
C113	178-1052-78	1uF	C328	168-1022-55	1000pF K	C550	178-4742-78	0.47uF
C114	178-1052-78	1uF	C329	166-1007-50	10pF CH	C551	168-1042-38	50V 0.1uF
C115	119-0000-05	1/10W 0 ohm JW	C330	163-1063-35	16V 10uF	C552	163-4763-35	16V 47uF
C116	168-1222-55	1200pF K	C331	166-1011-50	100pF CH	C553	163-4763-35	16V 47uF
C117	178-1052-78	1uF	C333	168-1042-78	16V 0.1uF	C554	189-3383-31	16V 3300uF
C118	168-4732-78	0.047uF K	C334	163-4763-15	6.3V 47uF	C556	172-1041-15	0.1uF
C119	168-1022-55	1000pF K	C335	178-1052-78	1uF	C557	163-4763-35	16V 47uF
C120	168-4722-55	4700pF K	C336	168-3332-55	0.033uF K	C559	168-6822-55	6800pF K
C121	168-4722-55	4700pF K	C338	168-1022-55	1000pF K	C560	168-6822-55	6800pF K
C122	163-1073-35	16V 100uF	C339	168-1022-55	1000pF K	C561	168-6822-55	6800pF K
C123	168-2222-55	2200pF K	C340	166-1007-50	10pF CH	C562	168-6822-55	6800pF K
C124	168-1022-55	1000pF K	C341	168-4712-55	470pF K	C563	168-6822-55	6800pF K
C125	168-2232-55	0.022uF K	C342	168-1042-78	16V 0.1uF	C564	166-2201-50	22pF CH
C126	168-2232-55	0.022uF K	C343	168-1022-55	1000pF K	C565	168-6822-55	6800pF K
C127	168-1022-55	1000pF K	C345	168-3322-55	3300pF K	C566	168-6822-55	6800pF K
C128	168-1022-55	1000pF K	C346	168-3322-55	3300pF K	C567	043-0604-90	25V 10uF B
C129	178-1052-78	1uF	C347	168-3322-55	3300pF K	C568	168-6822-55	6800pF K
C130	168-1022-55	1000pF K	C348	168-3322-55	3300pF K	C569	168-6822-55	6800pF K
C131	163-1073-35	16V 100uF	C350	042-0643-58	6.3V 330uF	C571	043-0566-90	50V 2.2uF K
C132	166-2201-50	22pF CH	C351	168-4722-55	4700pF K	C572	178-1052-78	1uF
C133	166-2201-50	22pF CH	C352	168-2222-55	2200pF K	C573	168-1042-78	16V 0.1uF
C134	166-2201-50	22pF CH	C353	168-2222-55	2200pF K	C574	163-1063-35	16V 10uF
C135	166-2201-50	22pF CH	C354	168-2222-55	2200pF K	C575	168-2232-55	0.022uF K
C136	178-1052-78	1uF	C355	168-2222-55	2200pF K	C576	163-1073-35	16V 100uF
C137	178-1052-78	1uF	C356	163-1073-15	6.3V 100uF	C577	168-2212-55	220pF K
C138	178-3342-78	0.33uF	C359	168-1022-55	1000pF K	C578	119-0000-05	1/10W 0 ohm JW
C140	163-1063-35	16V 10uF	C360	166-4711-50	470pF CH	CCT401	050-0145-52	1/16W 1k ohm x4
C141	163-1063-35	16V 10uF (PN-3000P)	C361	043-0554-90	25V 10uF	CCT402	050-0145-52	1/16W 1k ohm x4
C142	168-1042-78	16V 0.1uF	C401	168-1042-78	16V 0.1uF	CCT403	050-0145-52	1/16W 1k ohm x4
C143	166-6801-50	68pF CH	C402	168-1042-78	16V 0.1uF	CCT404	050-0145-52	1/16W 1k ohm x4
C144	043-0548-50	2.2uF	C404	166-5096-50	5pF CH	D106	001-0580-90	1SS352
C201	043-0548-50	2.2uF	C406	166-5096-50	5pF CH	D108	001-0529-48	MA8091-H
C202	043-0548-50	2.2uF	C407	168-1042-78	16V 0.1uF	D109	001-0580-90	1SS352 (PN-3000P)
C203	043-0548-50	2.2uF	C408	163-4763-15	6.3V 47uF	D208	001-0580-90	1SS352
C204	043-0548-50	2.2uF	C409	168-1042-78	16V 0.1uF	D210	001-0529-72	MA8200-M
C220	163-2273-25	10V 220uF	C412	168-1032-55	0.01uF K	D211	001-9210-50	AVR- M1608C270MTAAD
C227	042-0643-58	6.3V 330uF	C413	163-1073-35	16V 100uF	D212	001-9210-50	AVR- M1608C270MTAAD
C228	163-2273-25	10V 220uF	C425	168-1042-78	16V 0.1uF	D213	001-9210-50	AVR- M1608C270MTAAD
C229	163-1063-35	16V 10uF	C501	168-1042-78	16V 0.1uF	D214	001-9210-50	AVR- M1608C270MTAAD
C230	168-1042-78	16V 0.1uF	C502	168-1042-78	16V 0.1uF	D215	001-2412-90	RR264M-400
C232	163-1063-35	16V 10uF	C503	168-1042-78	16V 0.1uF	D401	001-0580-90	1SS352
C233	168-1042-78	16V 0.1uF	C504	168-1042-78	16V 0.1uF	D505	001-0529-48	MA8091-H
C236	178-1052-78	1uF	C505	166-5611-50	560pF CH	D506	001-2640-90	D1FJ4
C238	178-3342-78	0.33uF	C506	166-5611-50	560pF CH	D508	001-0529-48	MA8091-H
C241	168-1022-55	1000pF K	C507	166-5611-50	560pF CH	D510	001-2015-00	RL253
C242	168-1022-55	1000pF K	C508	166-5611-50	560pF CH	D511	001-0580-90	1SS352
C301	163-4753-65	50V 4.7uF	C509	166-2201-50	22pF CH	D512	001-0529-48	MA8091-H
C302	168-1042-78	16V 0.1uF	C510	166-2201-50	22pF CH	D514	001-0580-90	1SS352
C303	166-1811-50	180pF CH	C511	043-0554-90	25V 10uF	D515	001-0529-34	MA8062-L
C304	166-1007-50	10pF CH	C512	178-3342-78	0.33uF	D516	001-0580-90	1SS352
C306	168-1042-78	16V 0.1uF	C513	166-2201-50	22pF CH	D567	001-0580-90	1SS352
C307	168-1042-78	16V 0.1uF	C514	166-2201-50	22pF CH	D568	001-0580-90	1SS352
C308	166-8097-50	8pF C CH	C516	166-5611-50	560pF CH	D569	001-4301-68	HZU18B1
C309	166-8097-50	8pF C CH	C517	166-5611-50	560pF CH	D570	001-4301-68	HZU18B1
C310	168-1022-55	1000pF K	C519	166-5611-50	560pF CH	D571	001-4301-68	HZU18B1
C311	163-4753-65	50V 4.7uF	C520	166-5611-50	560pF CH	IC101	051-6524-90	AK2301A-E1
C312	168-1042-78	16V 0.1uF	C521	168-1042-78	16V 0.1uF	IC103	051-3034-90	NJM4558V
C313	163-4753-65	50V 4.7uF	C522	178-3342-78	0.33uF	IC104	051-3519-90	NJU7771F05-TE2
C314	168-1042-78	16V 0.1uF	C523	163-1063-35	16V 10uF			
C315	168-1022-55	1000pF K	C525	163-1073-35	16V 100uF			
C316	168-1022-55	1000pF K	C530	163-1073-35	16V 100uF			
C317	166-1011-50	100pF CH	C532	168-1042-78	16V 0.1uF			
			C533	168-5632-78	16V 0.056uF			
			C534	168-5632-78	16V 0.056uF			

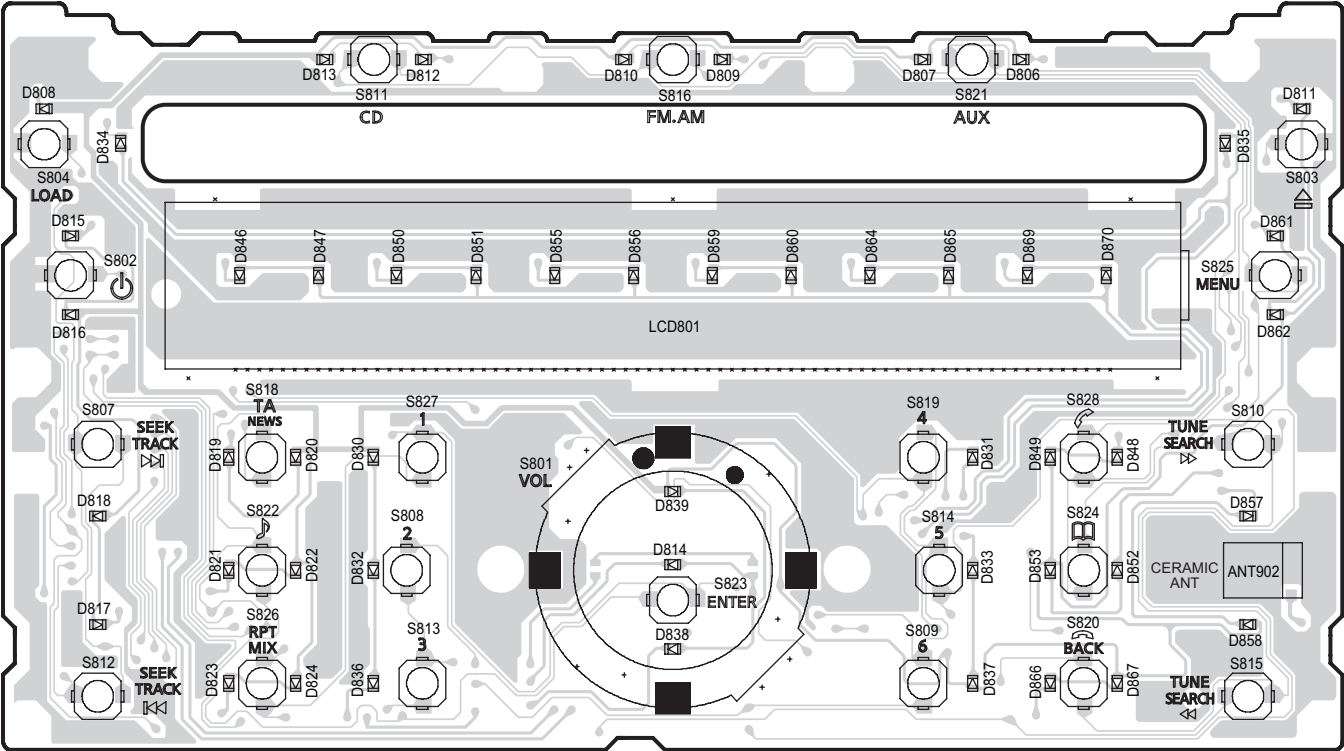
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
IC107	051-7255-08	SN74AHC1G66 HDCKR	Q403	191-0709-00	2SB709A Q,R,S	R208	119-3011-15	1/10W 300 ohm
IC204	051-3340-00	LD1085P	Q404	192-2712-00	2SC2712	R210	119-1021-15	1/10W 1k ohm
IC205	051-3516-90	S-1132B33-U5T1G	Q405	125-2027-91	DTC114EUA	R212	119-3331-15	1/10W 33k ohm
IC301	-----	SAF7730HV/N317	Q406	125-0006-90	UN2110	R215	119-4731-15	1/10W 47k ohm
IC402	-----	M30876FJBGP	Q503	125-2027-91	DTC114EUA	R220	119-1041-15	1/10W 100k ohm
IC404	051-5417-08	S-80927CNMC-G8X	Q504	191-1197-50	2SB1197K Q,R	R224	119-4721-15	1/10W 4.7k ohm
IC406	051-9425-80	S-24CS64A0I-J8T1G	Q506	125-2027-91	DTC114EUA	R227	119-4721-15	1/10W 4.7k ohm
IC501	051-3019-90	NJM2060V	Q507	191-1197-50	2SB1197K Q,R	R229	119-4721-15	1/10W 4.7k ohm
IC502	051-3518-90	NJM2846DL3-33- TE1	Q509	193-2118-00	2SD2118F5 Q,R,S	R233	119-4721-15	1/10W 4.7k ohm
IC503	051-2042-00	TA8275H	Q512	125-2027-91	DTC114EUA	R248	116-2201-15	1/4W 22 ohm
IC504	051-3396-90	NJM2386ADL3-33- TE1	Q515	193-1664-00	2SD1664 P,Q,R	R249	032-0140-98	1/10W 330 ohm F
IC505	051-3517-90	LT3481EMSE #TRPBF	Q516	192-4116-51	2SC4116 G,L	R250	116-1221-15	1/4W 1.2k ohm
IC506	051-5441-08	BD4828G-TR	Q517	191-1204-61	2SB1204 R,S,T	R251	032-0140-93	1/10W 2k ohm F
J201	074-1302-12	TH12P-SOCKET	Q518	125-2027-91	DTC114EUA	R252	119-1031-15	1/10W 10k ohm
J202	074-1237-69	19PIN	Q519	191-1197-50	2SB1197K Q,R	R266	119-0000-05	1/10W 0 ohm JW
J204	074-1013-00	12P	Q520	192-4116-00	2SC4116	R301	119-1031-15	1/10W 10k ohm
J502	074-4009-20	SOCKET(20P)	Q521	192-4081-00	2SC4081	R302	119-1031-15	1/10W 10k ohm
L105	010-2003-04	30uH	Q522	125-2027-91	DTC114EUA	R303	119-2201-15	1/10W 22 ohm
L106	010-3104-54	600 ohm/100MHz	Q523	192-4081-00	2SC4081	R304	032-0140-80	1/10W 18k ohm F
L107	010-3104-54	600 ohm/100MHz	R103	119-3321-15	1/10W 3.3k ohm	R305	032-0140-80	1/10W 18k ohm F
L108	010-2198-50	0.15uH	R106	119-0000-05	1/10W 0 ohm JW	R306	032-0140-80	1/10W 18k ohm F
L301	010-3104-54	600 ohm/100MHz	R109	119-3321-15	1/10W 3.3k ohm	R307	032-0140-80	1/10W 18k ohm F
L302	010-3104-54	600 ohm/100MHz	R111	119-3321-15	1/10W 3.3k ohm	R314	119-1011-15	1/10W 100 ohm
L303	010-3104-54	600 ohm/100MHz	R112	119-0000-05	1/10W 0 ohm JW	R315	119-1031-15	1/10W 10k ohm
L304	010-3104-54	600 ohm/100MHz	R113	119-3321-15	1/10W 3.3k ohm	R316	119-1021-15	1/10W 1k ohm
L305	010-3104-54	600 ohm/100MHz	R116	119-2741-15	1/10W 270k ohm	R317	119-1031-15	1/10W 10k ohm
L306	010-3104-54	600 ohm/100MHz	R117	119-3331-15	1/10W 33k ohm	R318	119-3921-15	1/10W 3.9k ohm
L307	010-3104-54	600 ohm/100MHz	R118	119-3931-15	1/10W 39k ohm	R319	119-1031-15	1/10W 10k ohm
L308	010-3104-54	600 ohm/100MHz	R121	119-3931-15	1/10W 39k ohm	R320	119-3921-15	1/10W 3.9k ohm
L309	010-3104-54	600 ohm/100MHz	R122	119-1031-15	1/10W 10k ohm	R321	119-1031-15	1/10W 10k ohm
L310	010-3104-54	600 ohm/100MHz	R123	119-1031-15	1/10W 10k ohm	R322	119-0000-05	1/10W 0 ohm JW
L311	010-3104-54	600 ohm/100MHz	R124	119-3931-15	1/10W 39k ohm	R323	119-1031-15	1/10W 10k ohm
L312	010-3104-54	600 ohm/100MHz	R125	119-1031-15	1/10W 10k ohm	R324	119-1041-15	1/10W 100k ohm
L313	010-3104-54	600 ohm/100MHz	R126	119-1011-15	1/10W 100 ohm	R325	119-1041-15	1/10W 100k ohm
L402	010-3406-54	2.2uH J	R127	119-4731-15	1/10W 47k ohm	R326	119-1001-15	1/10W 10 ohm
L501	010-3104-54	600 ohm/100MHz	R128	119-4731-15	1/10W 47k ohm	R327	119-3921-15	1/10W 3.9k ohm
L503	010-3414-90	6.8uH	R129	119-4731-15	1/10W 47k ohm	R328	119-0000-05	1/10W 0 ohm JW
P101	076-3011-66	16P	R130	119-8221-15	1/10W 8.2k ohm	R329	119-1021-15	1/10W 1k ohm
P401	076-0478-59	PLUG (9P)	R131	119-1011-15	1/10W 100 ohm	R330	119-3921-15	1/10W 3.9k ohm
P402	076-3011-72	22P	R132	119-1011-15	1/10W 100 ohm	R331	119-0000-05	1/10W 0 ohm JW
Q101	198-3018-00	2SK3018	R133	119-1031-15	1/10W 10k ohm	R332	032-0140-50	1/10W 10k ohm F
Q102	198-3018-00	2SK3018	R135	119-2231-15	1/10W 22k ohm	R334	032-0140-50	1/10W 10k ohm F
Q104	125-9017-92	UMD3N-TR	R136	116-6891-15	1/4W 6.8 ohm	R336	032-0140-50	1/10W 10k ohm F
Q105	125-2027-91	DTC114EUA	R138	119-1031-15	1/10W 10k ohm	R337	032-0140-50	1/10W 10k ohm F
Q106	125-2027-91	DTC114EUA	R139	119-1041-15	1/10W 100k ohm	R338	032-0140-50	1/10W 10k ohm F
Q107	125-2027-91	DTC114EUA	R140	119-1001-15	1/10W 10 ohm	R339	032-0140-50	1/10W 10k ohm F
Q108	125-2027-91	DTC114EUA	R141	119-1031-15	1/10W 10k ohm	R340	032-0140-50	1/10W 10k ohm F
Q109	192-5886-00	2SC5886	R143	119-2231-15	1/10W 22k ohm	R341	119-1031-15	1/10W 10k ohm
Q110	125-2027-90	DTC143EU (PN-3000P)	R144	119-2231-15	1/10W 22k ohm	R342	119-1031-15	1/10W 10k ohm
Q111	190-2060-00	2SA2060 (PN-3000P)	R145	119-1001-15	1/10W 10 ohm	R343	119-1031-15	1/10W 10k ohm
Q112	125-9017-92	UMD3N-TR	R146	119-1031-15	1/10W 10k ohm	R344	119-1011-15	1/10W 100 ohm
Q201	192-4081-00	2SC4081	R148	116-1091-15	1/4W 1 ohm (PN-3000P)	R345	119-1011-15	1/10W 100 ohm
Q204	125-9017-92	UMD3N-TR	R149	116-1221-15	1/4W 1.2k ohm (PN-3000P)	R346	119-0000-05	1/10W 0 ohm JW
Q206	198-3018-00	2SK3018	R150	116-3911-15	1/4W 390 ohm	R347	119-0000-05	1/10W 0 ohm JW
Q207	198-3018-00	2SK3018	R151	119-1031-15	1/10W 10k ohm (PN-3000P)	R348	119-0000-05	1/10W 0 ohm JW
Q219	125-2027-90	DTC143EU	R153	119-1041-15	1/10W 100k ohm	R349	119-0000-05	1/10W 0 ohm JW
Q220	191-1197-50	2SB1197K Q,R	R162	119-0000-05	1/10W 0 ohm JW	R350	119-1031-15	1/10W 10k ohm
Q222	125-9017-92	UMD3N-TR	R165	119-1031-15	1/10W 10k ohm	R351	119-0000-05	1/10W 0 ohm JW
Q301	125-7007-90	Si5441BDC-TI-E3	R166	119-1031-15	1/10W 10k ohm	R352	119-4731-15	1/10W 47k ohm
Q302	125-2027-91	DTC114EUA	R167	119-1031-15	1/10W 10k ohm	R353	119-1021-15	1/10W 1k ohm
Q303	125-2027-91	DTC114EUA	R168	119-1031-15	1/10W 10k ohm	R354	119-1021-15	1/10W 1k ohm
Q304	125-2027-91	DTC114EUA	R169	119-1031-15	1/10W 10k ohm	R355	119-1021-15	1/10W 1k ohm
Q305	125-2027-91	DTC114EUA	R170	119-1031-15	1/10W 10k ohm	R356	119-1021-15	1/10W 1k ohm
Q306	125-2027-91	DTC114EUA	R171	119-0000-05	1/10W 0 ohm JW	R357	119-4731-15	1/10W 47k ohm
Q307	125-2027-91	DTC114EUA	R172	119-0000-05	1/10W 0 ohm JW	R358	119-1001-15	1/10W 10 ohm
Q308	125-2027-91	DTC114EUA	R173	119-1531-15	1/10W 15k ohm	R359	119-4731-15	1/10W 47k ohm
Q401	125-2027-91	DTC114EUA	R174	119-2231-15	1/10W 22k ohm	R360	119-4731-15	1/10W 47k ohm
Q402	125-0021-91	DTA114EUA	R175	119-1021-15	1/10W 1k ohm	R361	119-4731-15	1/10W 47k ohm
			R176	119-3931-15	1/10W 39k ohm	R362	119-4731-15	1/10W 47k ohm
			R177	119-6821-15	1/10W 6.8k ohm	R400	119-0000-05	1/10W 0 ohm JW
			R207	119-3011-15	1/10W 300 ohm	R401	119-1021-15	1/10W 1k ohm
						R402	119-1021-15	1/10W 1k ohm
						R403	119-1021-15	1/10W 1k ohm
						R404	119-0000-05	1/10W 0 ohm JW



REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R405	119-1021-15	1/10W 1k ohm	R464	119-2231-15	1/10W 22k ohm	R565	116-1221-15	1/4W 1.2k ohm
R406	119-1021-15	1/10W 1k ohm	R465	119-4731-15	1/10W 47k ohm	R566	119-1521-15	1/10W 1.5k ohm
R407	119-1021-15	1/10W 1k ohm	R468	119-1031-15	1/10W 10k ohm	R567	119-1031-15	1/10W 10k ohm
R408	119-4721-15	1/10W 4.7k ohm	R469	119-1031-15	1/10W 10k ohm	R568	116-1221-15	1/4W 1.2k ohm
R409	119-4721-15	1/10W 4.7k ohm	R470	119-4731-15	1/10W 47k ohm	R569	116-1221-15	1/4W 1.2k ohm
R410	119-4731-15	1/10W 47k ohm	R471	119-1241-15	1/10W 120k ohm	R570	119-1031-15	1/10W 10k ohm
R411	119-3311-15	1/10W 330 ohm	R472	119-3331-15	1/10W 33k ohm	R571	119-4721-15	1/10W 4.7k ohm
R412	119-3311-15	1/10W 330 ohm	R473	119-6801-15	1/10W 68 ohm	R572	119-1031-15	1/10W 10k ohm
R413	119-4731-15	1/10W 47k ohm	R474	119-2241-15	1/10W 220k ohm	R573	032-0148-50	1/10W 100k ohm
R416	119-4731-15	1/10W 47k ohm	R488	119-1031-15	1/10W 10k ohm	R574	032-0140-16	1/10W 180k ohm F
R417	119-4731-15	1/10W 47k ohm	R489	119-4731-15	1/10W 47k ohm	R575	116-2721-15	1/4W 2.7k ohm
R418	119-4711-15	1/10W 470 ohm	R490	119-6821-15	1/10W 6.8k ohm	R576	116-1531-15	1/4W 15k ohm
R419	119-4711-15	1/10W 470 ohm	R502	119-1031-15	1/10W 10k ohm	R577	119-0000-05	1/10W 0 ohm JW
R420	119-4711-15	1/10W 470 ohm	R503	119-1031-15	1/10W 10k ohm	R578	119-2221-15	1/10W 2.2k ohm
R421	119-4711-15	1/10W 470 ohm	R504	119-1031-15	1/10W 10k ohm	R580	116-1531-15	1/4W 15k ohm
R422	119-1011-15	1/10W 100 ohm	R505	119-1031-15	1/10W 10k ohm	R581	119-1031-15	1/10W 10k ohm
R423	119-1011-15	1/10W 100 ohm	R507	119-1031-15	1/10W 10k ohm	R582	119-5611-15	1/10W 560 ohm
R424	119-1011-15	1/10W 100 ohm	R508	119-1031-15	1/10W 10k ohm	R583	116-4791-15	1/4W 4.7 ohm
R425	119-1011-15	1/10W 100 ohm	R509	119-1031-15	1/10W 10k ohm	R584	116-4791-15	1/4W 4.7 ohm
R426	119-1011-15	1/10W 100 ohm	R510	119-1031-15	1/10W 10k ohm	R585	119-1031-15	1/10W 10k ohm
R427	119-1011-15	1/10W 100 ohm	R511	119-0000-05	1/10W 0 ohm JW	R586	119-0000-05	1/10W 0 ohm JW
R428	119-1031-15	1/10W 10k ohm	R512	119-1031-15	1/10W 10k ohm	R587	119-2231-15	1/10W 22k ohm
R429	119-1031-15	1/10W 10k ohm	R513	119-1031-15	1/10W 10k ohm	R588	119-3321-15	1/10W 3.3k ohm
R430	119-1031-15	1/10W 10k ohm	R514	119-1051-15	1/10W 1M ohm	R590	119-0000-05	1/10W 0 ohm JW
R431	119-1031-15	1/10W 10k ohm	R515	119-1051-15	1/10W 1M ohm	R591	119-0000-05	1/10W 0 ohm JW
R432	119-1031-15	1/10W 10k ohm	R517	119-1051-15	1/10W 1M ohm	R592	119-0000-05	1/10W 0 ohm JW
R433	119-1031-15	1/10W 10k ohm	R518	119-1051-15	1/10W 1M ohm	R593	119-0000-05	1/10W 0 ohm JW
R436	119-1021-15	1/10W 1k ohm	R519	119-1031-15	1/10W 10k ohm	R594	119-0000-05	1/10W 0 ohm JW
R437	119-1021-15	1/10W 1k ohm	R520	119-1031-15	1/10W 10k ohm	R595	119-4731-15	1/10W 47k ohm
R440	119-4721-15	1/10W 4.7k ohm	R521	119-1031-15	1/10W 10k ohm	R596	119-4731-15	1/10W 47k ohm
R441	119-1021-15	1/10W 1k ohm	R522	119-1031-15	1/10W 10k ohm	R597	119-7531-15	1/10W 75k ohm
R442	119-1031-15	1/10W 10k ohm	R523	119-1031-15	1/10W 10k ohm	R598	119-4731-15	1/10W 47k ohm
R443	119-4731-15	1/10W 47k ohm	R524	119-1031-15	1/10W 10k ohm	R943	119-1021-15	1/10W 1k ohm
R445	119-0000-05	1/10W 0 ohm JW	R525	119-1031-15	1/10W 10k ohm	SUP102	060-0122-91	DSP-141N-S00B
R446	119-4731-15	1/10W 47k ohm	R526	119-1031-15	1/10W 10k ohm	TH101	002-0229-00	PTH8L05BAIR8M1B (PN-3000P)
R447	119-1031-15	1/10W 10k ohm	R533	119-1031-15	1/10W 10k ohm	TH201	002-0229-00	PTH8L05BAIR8M1B
R448	119-4731-15	1/10W 47k ohm	R534	119-1031-15	1/10W 10k ohm	T508	009-0670-81	180uH
R449	119-1021-15	1/10W 1k ohm	R535	119-1031-15	1/10W 10k ohm	TM101	073-0762-90	TERMINAL
R450	119-1021-15	1/10W 1k ohm	R540	116-6811-15	1/4W 680 ohm	TM102	073-0762-90	TERMINAL
R451	119-4731-15	1/10W 47k ohm	R542	032-0140-03	1/10W 220k ohm F	TM201	073-0762-90	TERMINAL
R452	119-4731-15	1/10W 47k ohm	R543	032-0140-19	1/10W 75k ohm F	TM501	073-0762-90	TERMINAL
R453	119-4731-15	1/10W 47k ohm	R548	119-2241-15	1/10W 220k ohm	TM502	073-0762-90	TERMINAL
R454	119-4731-15	1/10W 47k ohm	R551	119-1031-15	1/10W 10k ohm	X301	061-3537-90	41.6MHz
R455	119-2231-15	1/10W 22k ohm	R553	119-4721-15	1/10W 4.7k ohm	X401	061-3541-90	CRYSTAL 10MHz
R456	119-4731-15	1/10W 47k ohm	R554	032-0140-51	1/10W 15k ohm F	PWB	039-3125-00	PWB(WITHOUT COMPONENT)
R458	119-1011-15	1/10W 100 ohm	R556	119-4721-15	1/10W 4.7k ohm			
R459	119-1011-15	1/10W 100 ohm	R557	119-4721-15	1/10W 4.7k ohm			
R460	119-4721-15	1/10W 4.7k ohm	R563	116-3911-15	1/4W 390 ohm			
R461	119-4721-15	1/10W 4.7k ohm	R564	116-1221-15	1/4W 1.2k ohm			

PRINTED WIRING BOARD

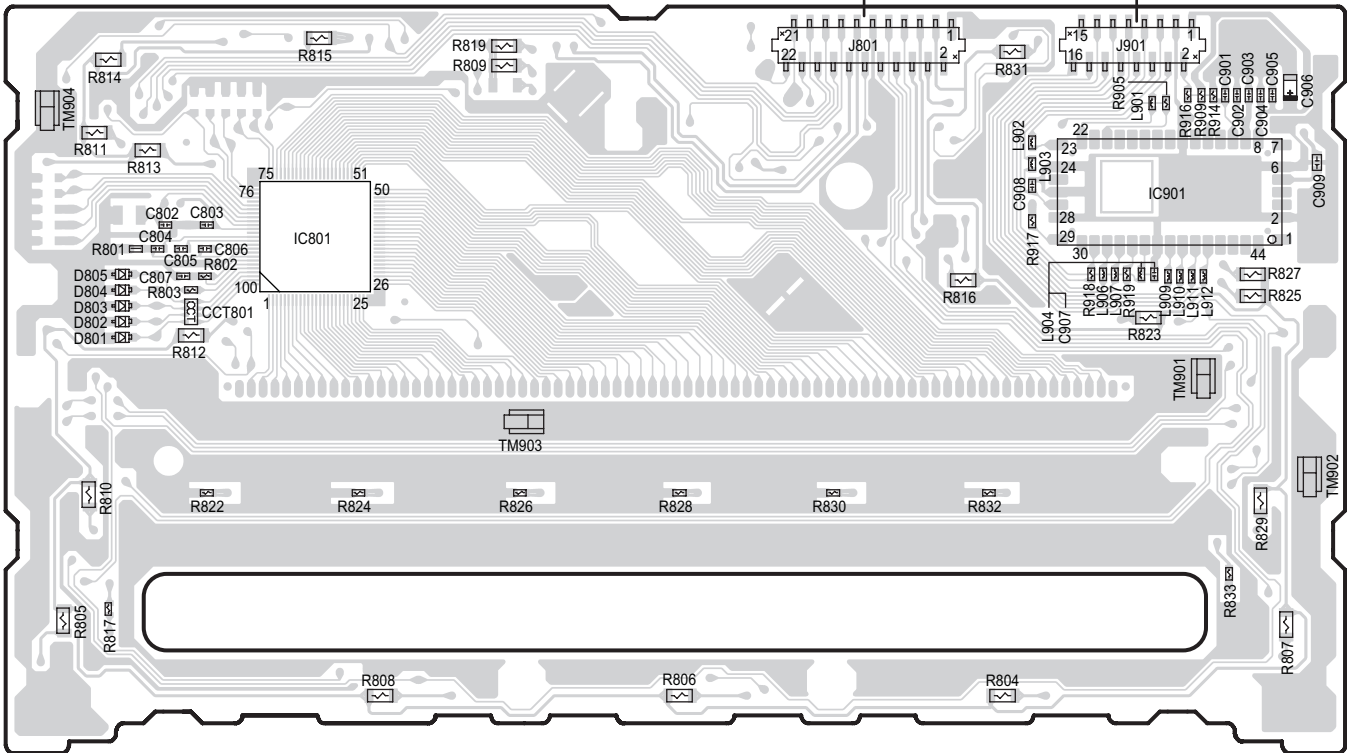
Switch PWB(B1) section



COMPONENT SIDE

Caution:  
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.  
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

SOLDER SIDE

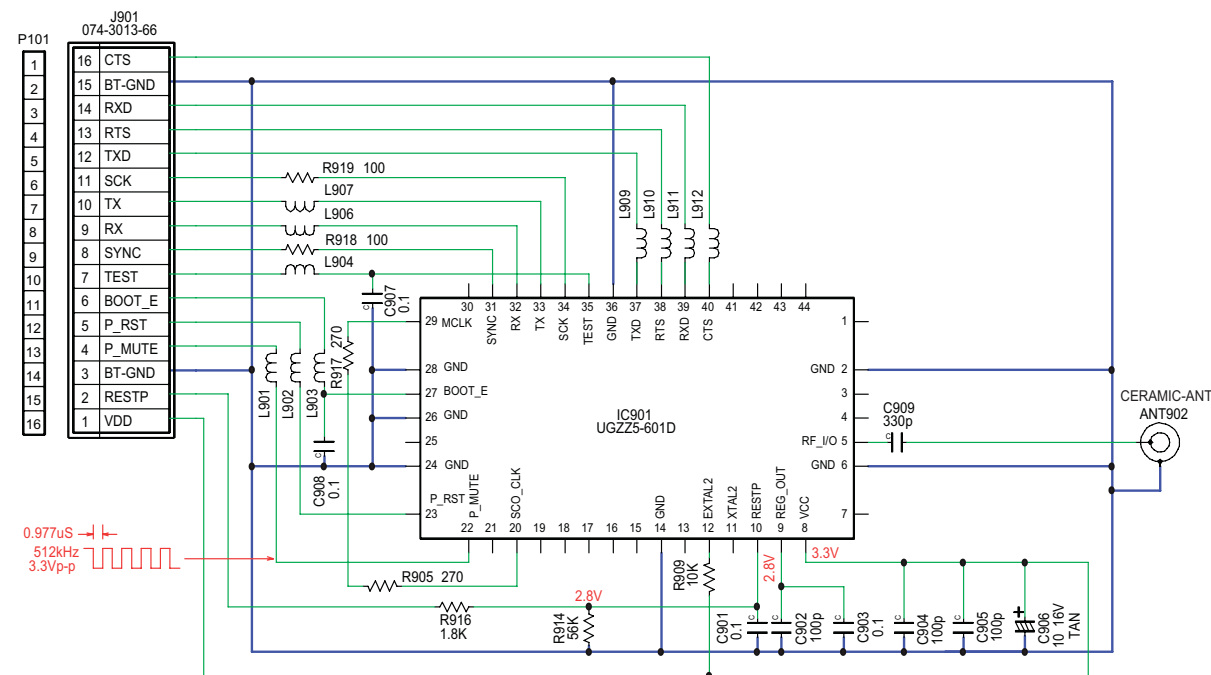
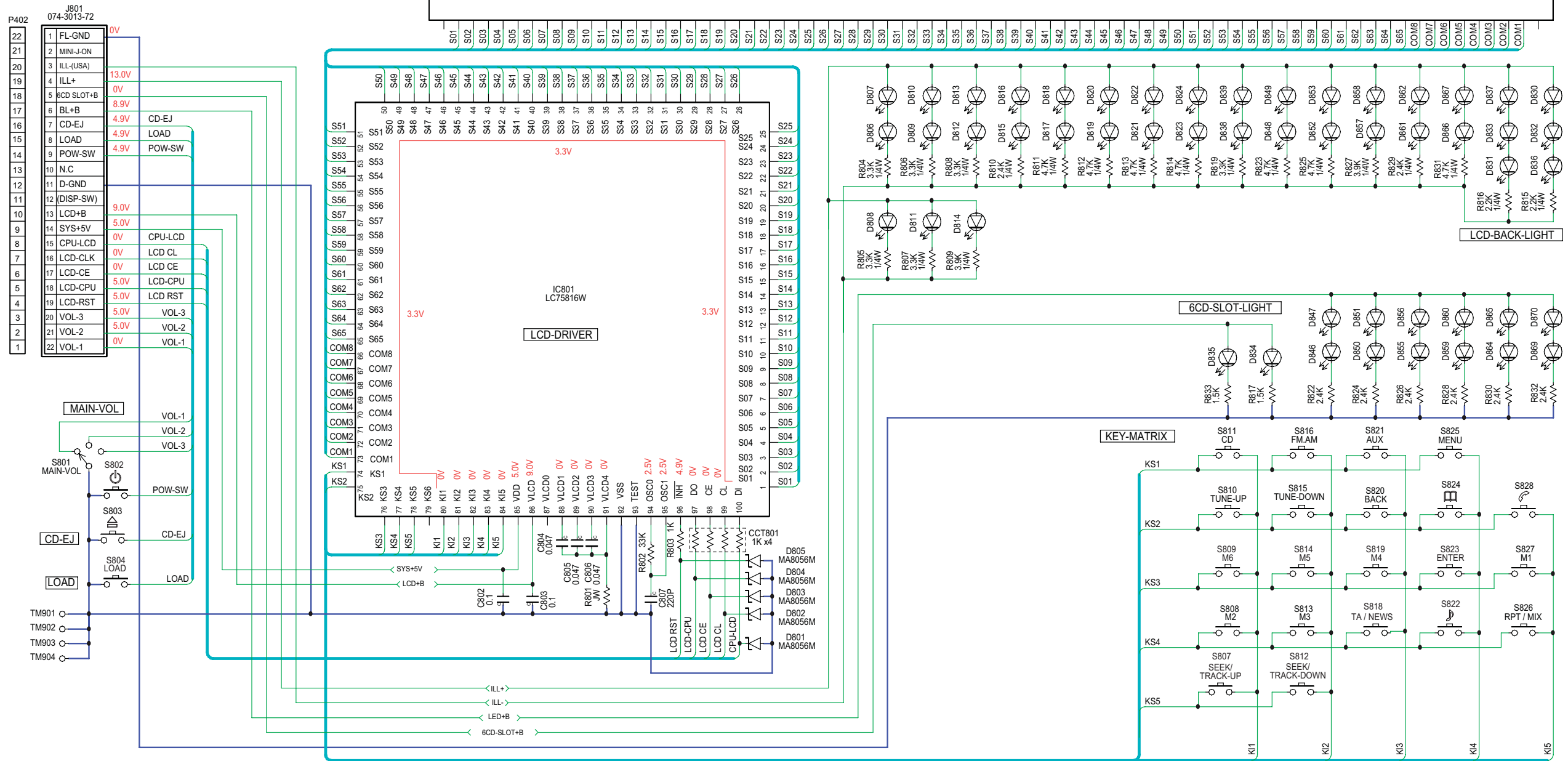


To page 16  
P402 of Main PWB

To page 16  
P101 of Main PWB



### Switch PWB(B1) section



PRINTED WIRING BOARD

Main PWB(B2) section

J201  
NAVI Connector  
(TH12 HW)

1	EQ1	7	MIC SIGNAL
2	EQ2	8	MIC GND
3	EQ3	9	MIC VCC
4	EQ4	10	N.C.
5	N.C.	11	N.C.
6	N.C.	12	N.C.

ANT101  
ANT Connector  
(GT13)

A ANTENNA ON  
( PN-3000P-A )  
  
N.C.  
( PP-3000M-A )  
( PP-3000M-B )

B ACTIVE ANT  
: USED ANTENNA BOOST  
AMP TYPE  
( PN-3000P-A )  
  
PASSIVE ANT  
( PP-3000M-A )  
( PP-3000M-B )

C N.C.

J502  
Main Connector  
(TH18 )

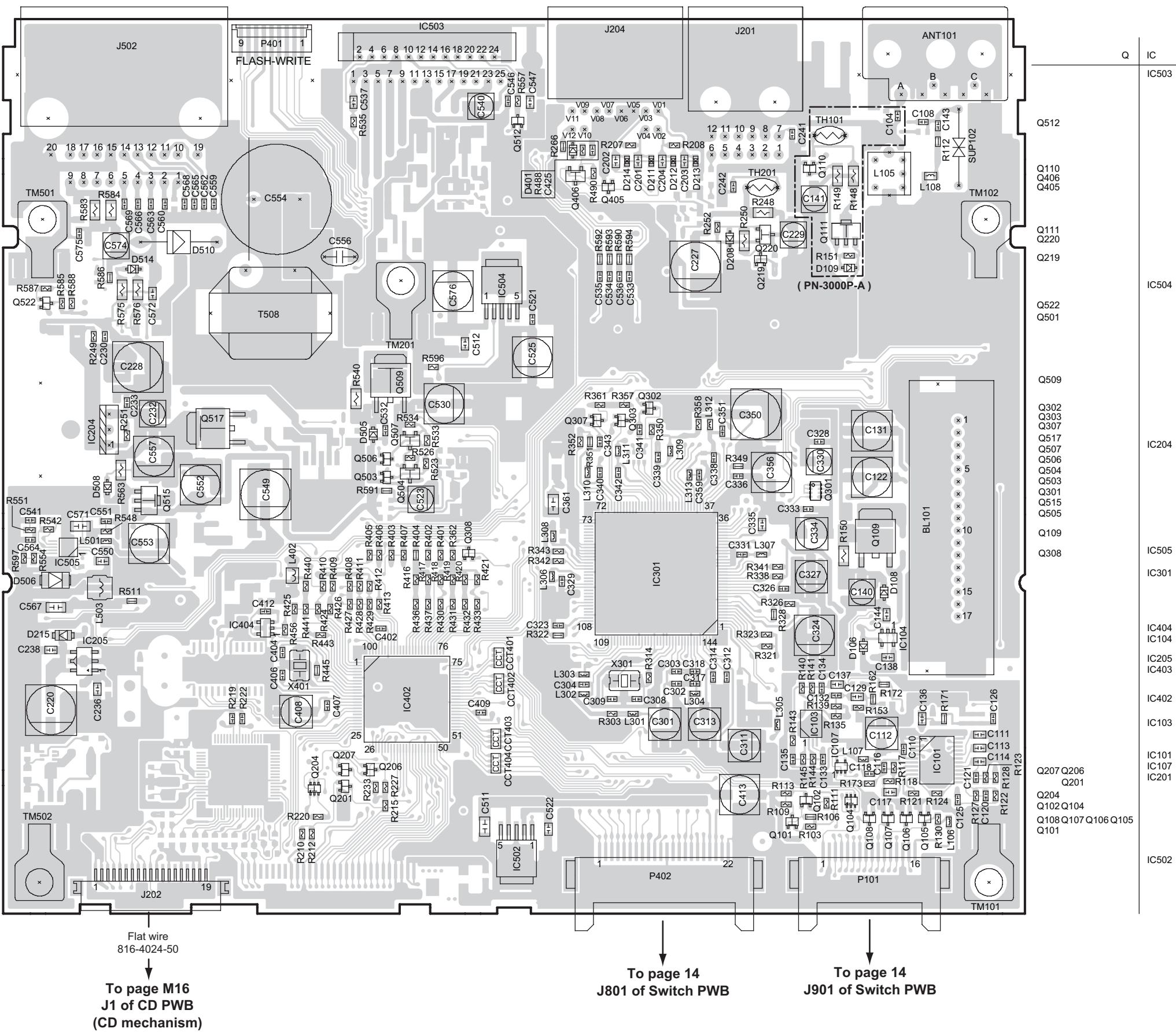
1	N.C.	11	FRONT-RH(+)
2	FRONT-LH(+)	12	FRONT-RH(-)
3	FRONT-LH(-)	13	REAR-RH(+)
4	REAR-LH(+)	14	REAR-RH(-)
5	REAR-LH(-)	15	STRG GND
6	STRG SW A	16	STRG SW B
7	ACC	17	IMMOBILIZER
8	N.C.	18	SPEED SIGNAL
9	ILLUMI (+)	19	BACK UP
10	N.C.	20	GND

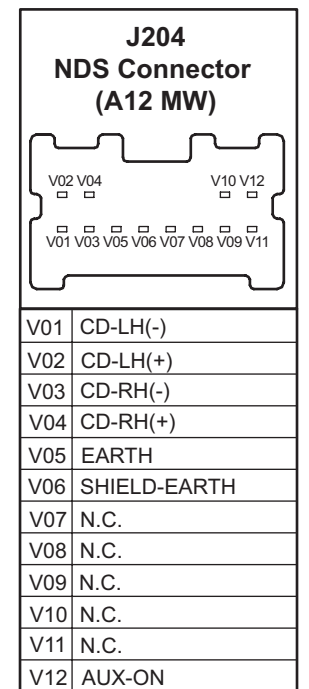
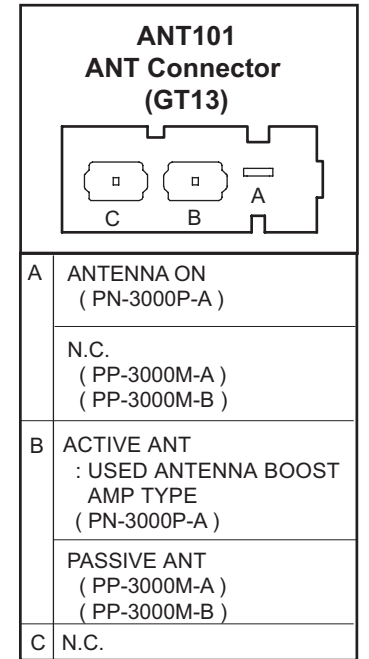
J204  
NDS Connector  
(A12 MW)

V01	CD-LH(-)
V02	CD-LH(+)
V03	CD-RH(-)
V04	CD-RH(+)
V05	EARTH
V06	SHIELD-EARTH
V07	N.C.
V08	N.C.
V09	N.C.
V10	N.C.
V11	N.C.
V12	AUX-ON

COMPONENT SIDE

Caution:  
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.



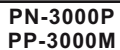


Caution:  
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

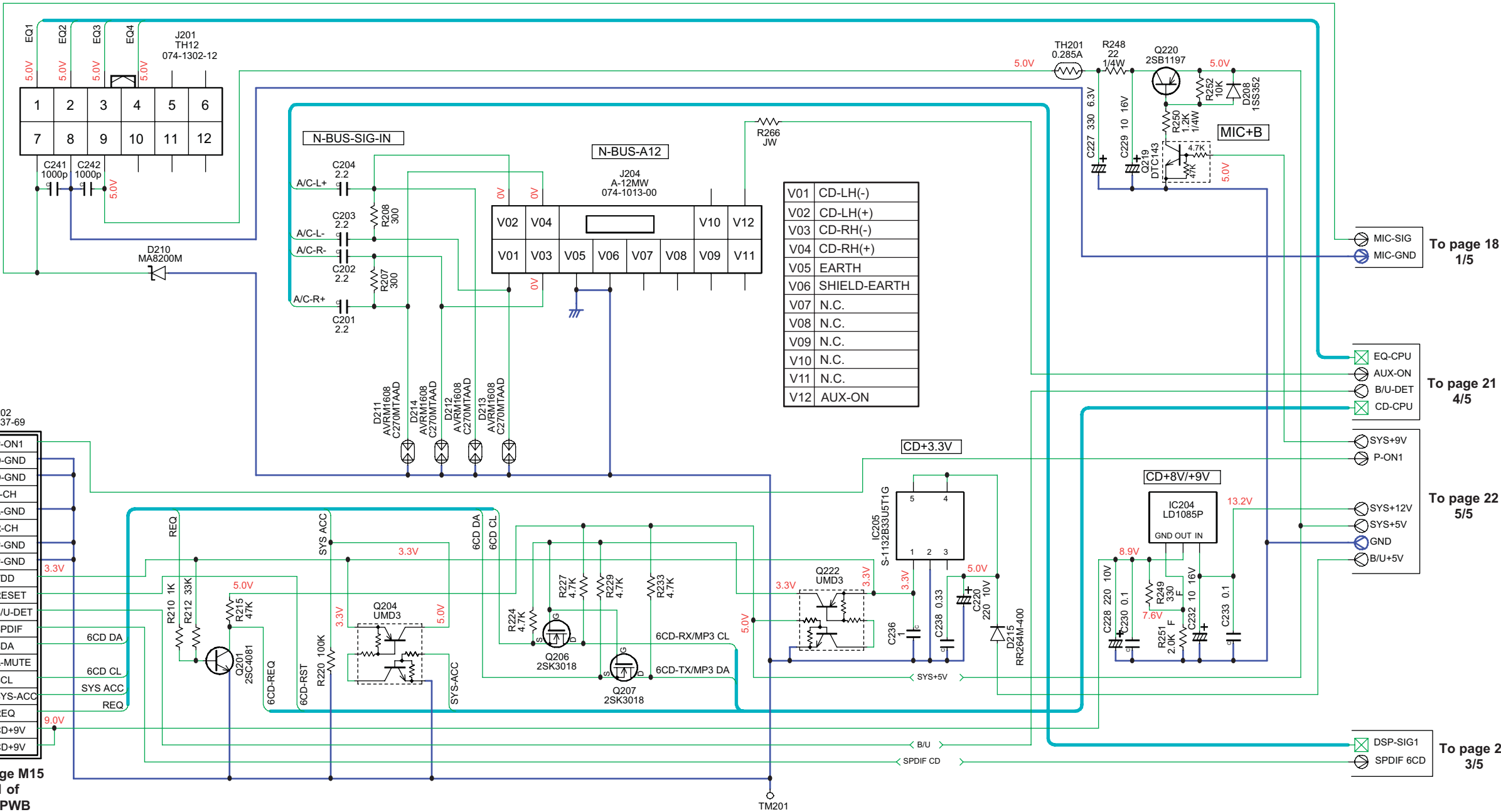
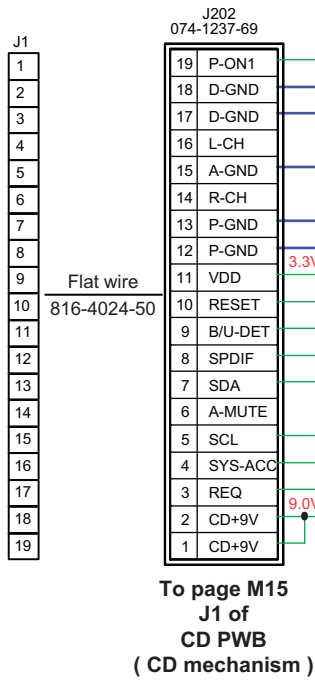
PN-3000P  
PP-3000M

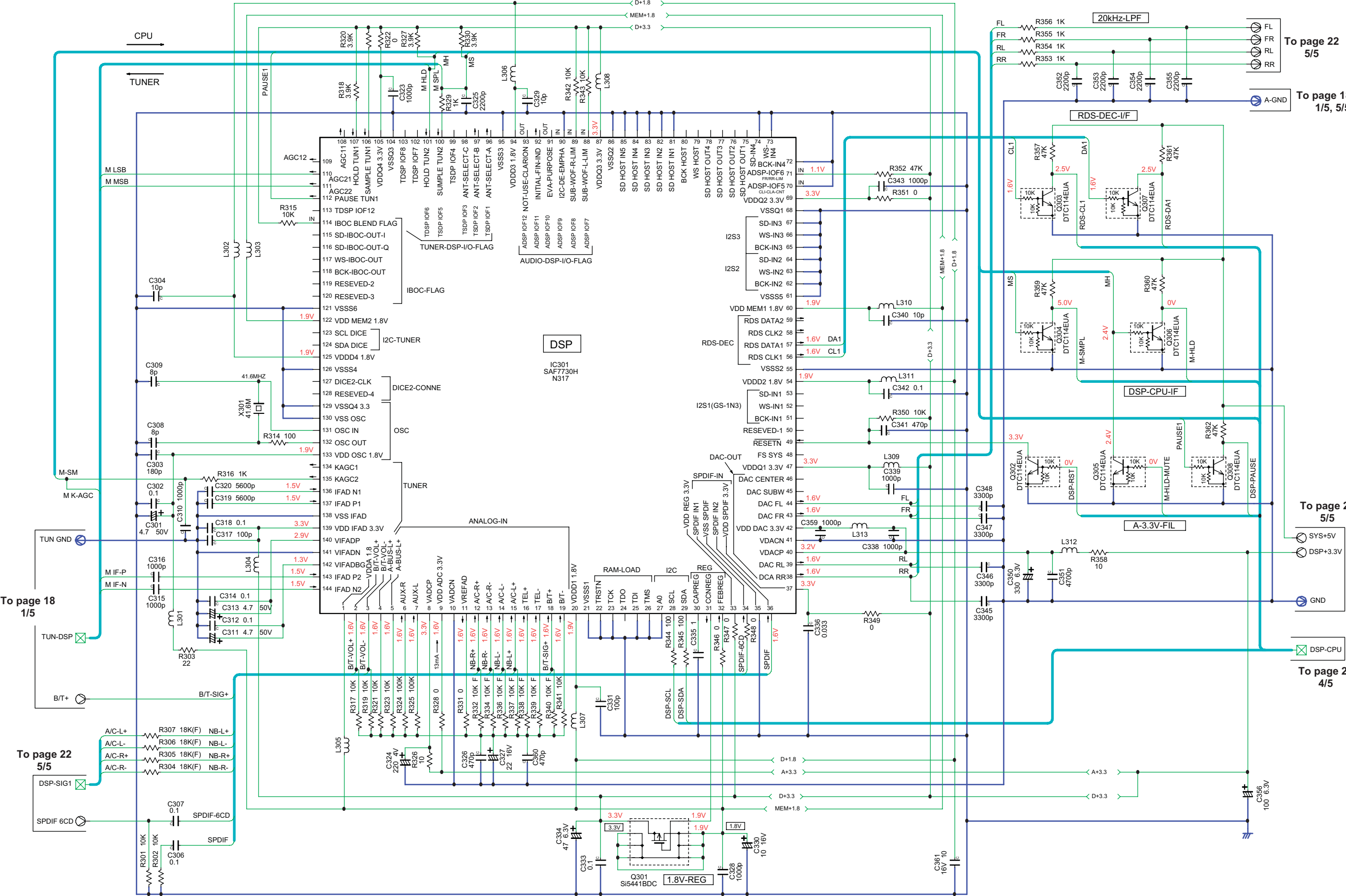


## Main PWB(B2) section 1/5

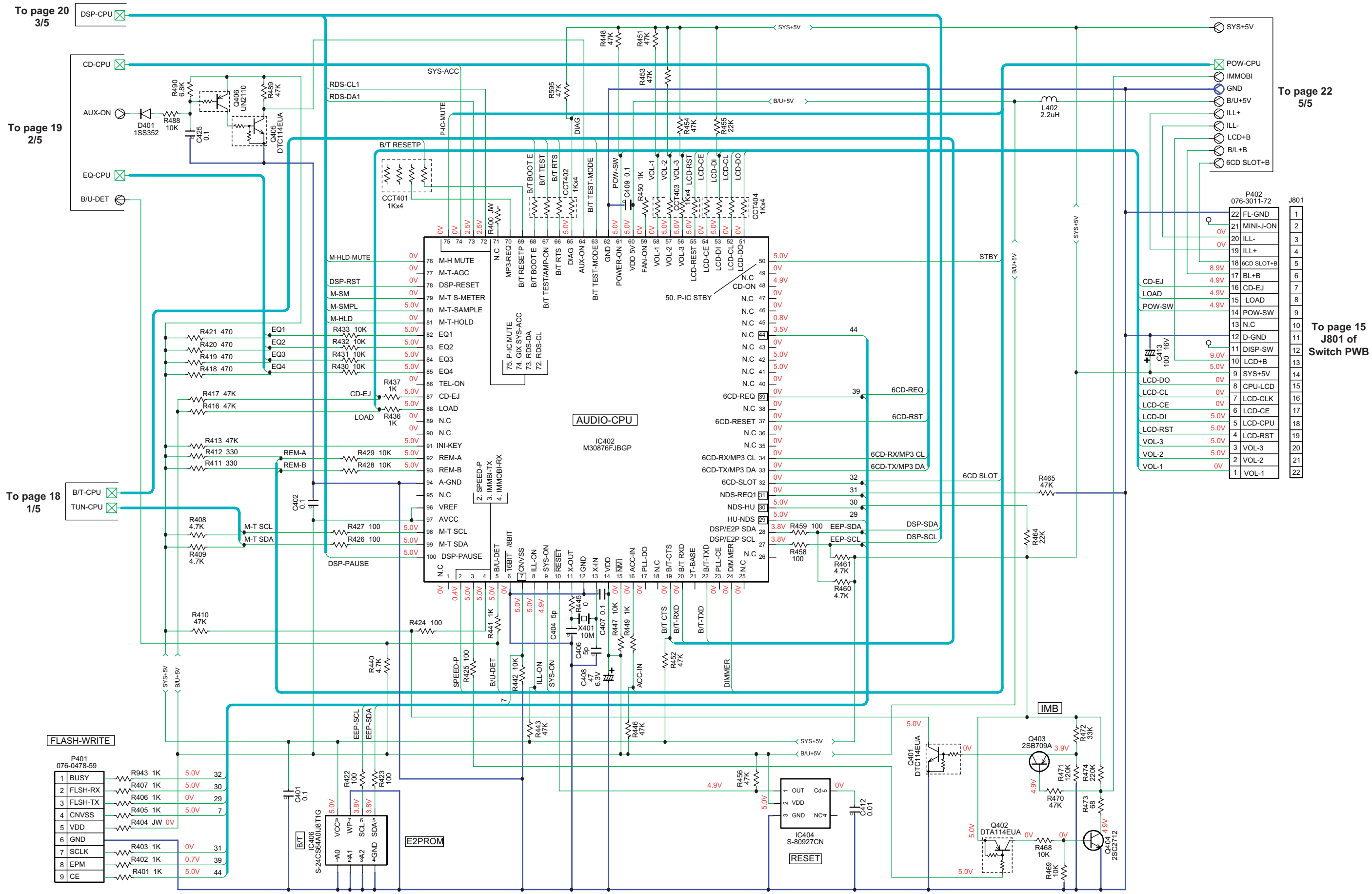


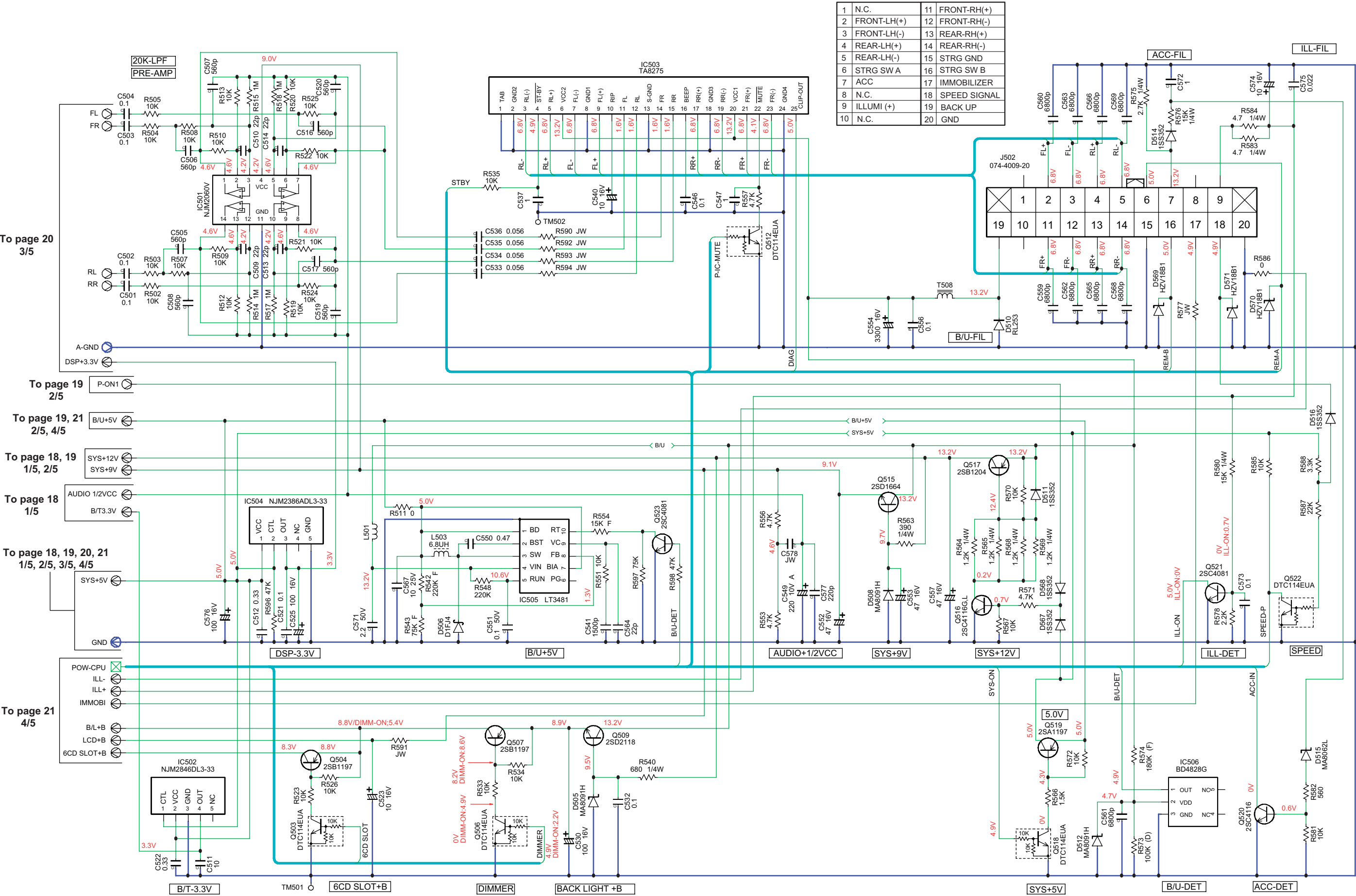
1	EQ1	7	MIC SIGNAL
2	EQ2	8	MIC GND
3	EQ3	9	MIC VCC
4	EQ4	10	N.C.
5	N.C.	11	N.C.
6	N.C.	12	N.C.



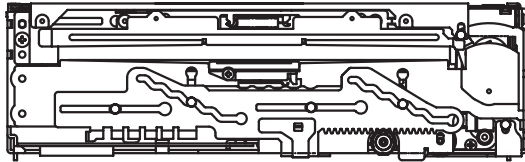








# Service Manual



## In Dash 6disk CD Auto Changer Mechanism (GI-X)

Model **929-0390-81**

## EXPLANATION OF IC

051-6733-00 TC94A73MFG-201

CD IC ( Decoder )

### Terminal Description

pin 1: A VSS	: - : Analog ground.	pin 34: VDD	: - : Positive voltage supply.
pin 2: RF ZI	: IN: RF ripple zero cross signal input.	pin 35: VDD	: - : Positive voltage supply.
pin 3: RF RP	: O : RF ripple signal output.	pin 36: SRAM STB	: IN: SRAM standby.
pin 4: SBAD/RFDC	: O : Sub beam Addition / RF Peak detection.	pin 37: RESET	: IN: Reset signal input.
pin 5: F E	: IN: Focusing error signal input.	pin 38: BUS 0	: I/O: Parallel Data input/output.
pin 6: T E	: IN: Tracking error signal input.	pin 39: BUS 1	: I/O: Parallel Data input/output.
pin 7: TE Z IN	: IN: Tracking error zero cross signal input.	pin 40: BUS 2 / SO	: I/O: Parallel Data input/output. Serial data output.
pin 8: A VDD	: - : Positive voltage supply for the analog section.	pin 41: BUS 3 / SI	: I/O: Parallel Data input/output. Serial data input.
pin 9: FOO	: O : Focus equalizer output.	pin 42: BUCK / CK	: IN: Parallel Data Clock input. Serial clock input.
pin 10: TRO	: O : Tracking equalizer output.	pin 43: CCEI	: IN: Chip enable input.
pin 11: Vref	: - : Reference voltage.	pin 44: TEST	: IN: For the test.
pin 12: FMO	: O : Field equalizer output.	pin 45: IRQ	: IN: DSP interrupt.
pin 13: DMO	: O : Disk equalizer output.	pin 46: A out 3	: O : Audio data output.
pin 14: VSS	: - : Negative voltage supply.	pin 47: A out 2	: O : Audio data output.
pin 15: VCO CNTRL	: IN: VCO control signal input.	pin 48: Pio 0	: I/O: General purpose input/output.
pin 16: VDD	: - : Positive voltage supply.	pin 49: Pio 1	: I/O: General purpose input/output.
pin 17: VDD	: - : Positive voltage supply.	pin 50: Pio 2	: I/O: General purpose input/output.
pin 18: VSS	: - : Negative voltage supply.	pin 51: Pio 3	: I/O: General purpose input/output.
pin 19: FG IN	: IN: FG input for the spindle CAV servo.	pin 52: VSS	: - : Negative voltage supply.
pin 20: IO 0 (HSo)	: I/O: Play speed mode flag.	pin 53: VDD	: - : Positive voltage supply.
pin 21: IO 1 (UHSO)	: I/O: Play speed mode flag.	pin 54: SB SY O	: O : Sub code block synchronous signal output.
pin 22: X VSS	: - : Clock ground.	pin 55: SB OK O	: O : Sub code Q data CRCC OK signal output.
pin 23: X in	: IN: Crystal connection.	pin 56: IPF out	: O : IP flag output.
pin 24: X out	: O : Crystal connection.	pin 57: SF SY O	: O : Frame synchronous signal output.
pin 25: X VDD	: - : Clock power supply.	pin 58: Z DET O	: O : DAC zero flag output.
pin 26: D VSS	: - : DAC ground.	pin 59: GPIN	: IN: General purpose input.
pin 27: RO	: O : Right channel audio signal output.	pin 60: M/S	: IN: I/F MODE selection.
pin 28: D VDD	: - : Positive voltage supply for the DAC.	pin 61: D out	: O : Digital audio interface output.
pin 29: DVR	: - : Reference voltage for the DAC.	pin 62: A out 1	: O : L ch, analog output.
pin 30: LO	: O : Left channel audio signal output.	pin 63: B CK	: O : Bit clock output.
pin 31: D VSS	: - : DAC ground.	pin 64: LR CK	: O : LR clock output.
pin 32: VDD	: - : Positive voltage supply.	pin 65: AiN	: IN: DAC data input.
pin 33: VSS	: - : Negative voltage supply.	pin 66: B CK IN	: IN: DAC Bit clock input.
		pin 67: LR CK IN	: IN: DAC Left/Right clock input.
		pin 68: VDD	: - : Positive voltage supply.
		pin 69: VSS	: - : Negative voltage supply.

pin 70: AWRC	: O : Control signal output for the active wide range VCO.	pin 22: FL RX	: IN : Serial data input for the flash memory.
pin 71: P VDD	: - : PLL positive voltage supply.	pin 23: LED SW	: O : Mechanism sensor LED Drive control.
pin 72: PDO	: O : Phase difference signal output of EFM-PLCK.	pin 24: PULL UP	: IN : VCC 3.3V.
pin 73: TMAX S	: O : T max judgment output.	pin 25: VCC	: - : Positive voltage supply.
pin 74: TMAX	: O : T max judgment output.	pin 26: X out	: O : Crystal connection.
pin 75: LPF N	: IN : Inverted input of LPF for PLL.	pin 27: VSS	: - : Negative voltage supply.
pin 76: LPF out	: O : Output for the Low Pass Filter.	pin 28: X in	: IN : Crystal connection.
pin 77: P Vref	: - : PLL reference voltage.	pin 29: PULL UP	: IN : VCC 3.3V.
pin 78: VCO FILTER	: O : Loop filter for VCO.	pin 30: RESET	: IN : Reset signal input.
pin 79: PLL VSS	: - : PLL ground.	pin 31: NU	: - : Not in use.
pin 80: SLCO	: O : Output of internal DAC for data slice level generation.	pin 32: NU	: - : Not in use.
pin 81: RF IN	: IN : RF signal input.	pin 33: NU	: O : Not in use.
pin 82: RF RP	: IN : RF ripple input.	pin 34: NU	: O : Not in use.
pin 83: RF EQ out	: O : The output of the RF equalizer.	pin 35: BU DET	: IN : Backup detection signal input.
pin 84: Vref out	: O : Reference voltage output.	pin 36: SW 5	: IN : The switch signal input.
pin 85: RESIN	: IN : Resistor connection for the reference current.	pin 37: SBSY	: IN : Sub code block synchronous signal detection input.
pin 86: VMDiR	: O : APC reference voltage.	pin 38: Power ON 2	: O : Power ON signal output.
pin 87: TESTR	: O : The compensation terminal for RFEQO offset.	pin 39: MODE CW	: O : Mode motor control.
pin 88: AGCI	: IN : Input of the RF AGC amplifier.	pin 40: MODE CCW	: O : Mode motor control.
pin 89: RF out	: O : RF signal output.	pin 41: U/D CW	: O : Holder control.
pin 90: RF VDD	: - : RF power supply.	pin 42: U/D CCW	: O : Holder control.
pin 91: LDO	: O : The laser diode drive output.	pin 43: ALE	: O : Address latch enable output.
pin 92: MDI	: IN : Monitor photo diode signal input.	pin 44: DR MUTE	: O : Drive mute signal output to the CD IC.
pin 93: RF VSS	: - : RF ground.	pin 45: NU	: - : Not in use.
pin 94: FNi 2	: IN : Main beam input.	pin 46: NU	: - : Not in use.
pin 95: FNi 1	: IN : Main beam input.	pin 47: NU	: - : Not in use.
pin 96: FPi 2	: IN : Main beam input.	pin 48: TIME	: O : For Time base.
pin 97: FPi 1	: IN : Main beam input.	pin 49: Power ON 4	: O : Power ON signal output.
pin 98: TPI	: IN : Sub beam signal input.	pin 50: LIMIT	: IN : Inside limit switch signal input for the pick-up.
pin 99: TNPC	: O : TNI/TPI capacitor.	pin 51: Power ON 3	: O : Power ON signal output.
pin100: TNI	: IN : Sub beam signal input.	pin 52: DSP REQ	: IN : DSP request input.
		pin 53: CCE	: O : Chip enable signal output.
		pin 54: BUS CK	: O : Bus clock output or Tape MSGU control.
		pin 55: BUS 3	: I/O : CD IC Data input / output.
		pin 56: BUS 2	: I/O : CD IC Data input / output.
		pin 57: BUS 1	: I/O : CD IC Data input / output.
		pin 58: BUS 0	: I/O : CD IC Data input / output.
		pin 59: CD RESET	: O : Reset pulse output to the CD IC.
		pin 60: SRM STB	: O : SRAM standby.
		pin 61: NU	: - : Not in use.
		pin 62: VSS	: - : Negative voltage supply.
		pin 63: NMI	: IN : Nonmaskable interrupt.
		pin 64: VCC	: - : Positive voltage supply.
		pin 65: HSSW1	: IN : L = It operates by one twice the speed of a standard.
		pin 66: NU	: - : Not in use.
		pin 67: EEP DI	: IN : Serial data input from EEP-ROM.
		pin 68: EEP DO	: O : Serial data output to EEP-ROM.
		pin 69: EEP CK	: O : EEP-ROM clock pulse out.
		pin 70: EEP CE	: O : EEP-ROM chip enable signal out.
		pin 71: NU	: - : Not in use.
		pin 72: NU	: - : Not in use.
		pin 73: TDO	: O : IEEE standard 1149.1 test data output. The contents of the selected register (instruction or data) are shifted out of TDO on the falling edge of TCK.
		pin 74: T CK	: O : The test clock output.
		pin 75: T CLEAR	: O : The test clear output.
		pin 76: MECHA SEL 2	: IN : The mechanism selection signal input.
		pin 77: MECHA SEL 1	: IN : The mechanism selection signal input.
		pin 78: FL BOOT	: IN : Flash memory control.

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052-5071-30 TMP91CY22IFG-6R96 Mechanism Controller

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TerminalDescription

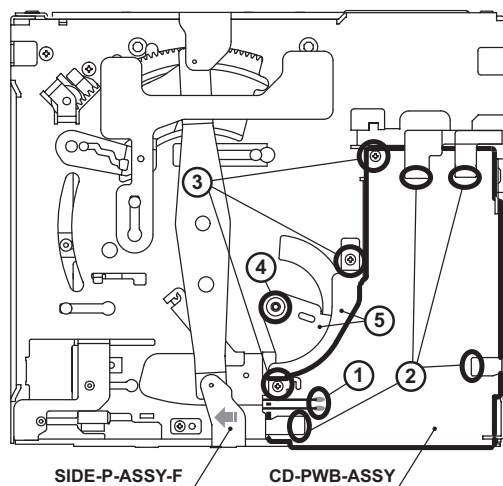
pin 1: Vref L	: - : Reference voltage.
pin 2: A VSS	: - : Analog ground.
pin 3: A VCC	: - : Positive voltage supply for the internal analog section.
pin 4: LO CW	: O : Loading motor control signal output.
pin 5: LO CCW	: O : Loading motor control signal output.
pin 6: A MUTE	: O : Audio mute signal output.
pin 7: P1/T3	: O : Power ON signal output.
pin 8: NU	: - : Not in use.
pin 9: Power ON 1	: O : Power ON signal output.
pin 10: NU	: - : Not in use.
pin 11: NU	: - : Not in use.
pin 12: NU	: - : Not in use.
pin 13: NU	: - : Not in use.
pin 14: NU	: - : Not in use.
pin 15: NU	: - : Not in use.
pin 16: NU	: - : Not in use.
pin 17: NU	: - : Not in use.
pin 18: NU	: - : Not in use.
pin 19: NU	: - : Not in use.
pin 20: NU	: - : Not in use.
pin 21: FL TX	: O : Serial data output for the flash memory.

pin 79: TEST 1 :IN: For the test.  
 pin 80: TEST 2 :IN: For the test.  
 pin 81: TEST 3 :IN: For the test.  
 pin 82: TEST 4 :IN: For the test.  
 pin 83: I2C REQUEST : O : I2C request output.  
 pin 84: I2C SDA :I/O: I2C serial data input/output.  
 pin 85: I2C SCL :I/O: I2C serial clock input/output.  
 pin 86: ACC DET :IN: ACC detection signal input.  
 pin 87: NU : - : Not in use.  
 pin 88: SW 1 :IN: The switch signal input.  
 pin 89: VCC : - : Positive voltage supply.  
 pin 90: SW 2 :IN: The switch signal input.  
 pin 91: VSS : - : Negative voltage supply.  
 pin 92: SW 3 :IN: The switch signal input.  
 pin 93: SW 4 :IN: The switch signal input.  
 pin 94: NU : - : Not in use.  
 pin 95: PT 3 :IN: The photo sensor signal input.  
 pin 96: PT 2 :IN: The photo sensor signal input.  
 pin 97: PT 1 :IN: The photo sensor signal input.  
 pin 98: PT 5 :IN: The photo sensor signal input.  
 pin 99: PT 4 :IN: The photo sensor signal input.  
 pin100: Vref H : - : Reference voltage.

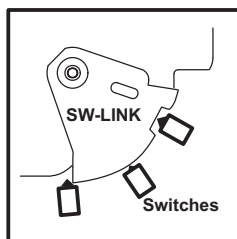
## DISASSEMBLY

### How to remove "CD-PWB-ASSY"

1. Add +5V to "U+" terminal of UD-MOTOR-ASSY, then SIDE-P-ASSY-F moves outside of CD-PWB.
2. Release four FPCs.
3. Remove three screws
4. Remove the washer.
5. Remove SW-H-PLATE and SW-LINK, and remove CD-PWB-ASSY.

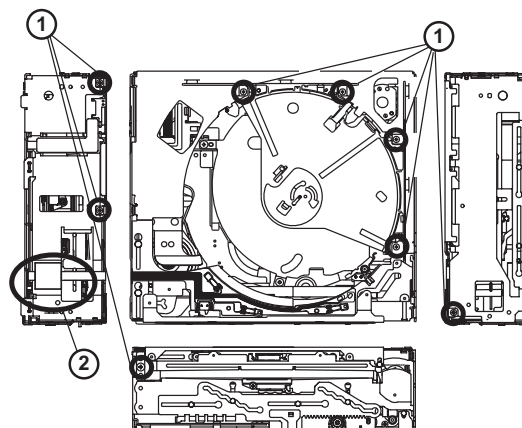


\*When assembling,  
match SW LINK to three  
switches.

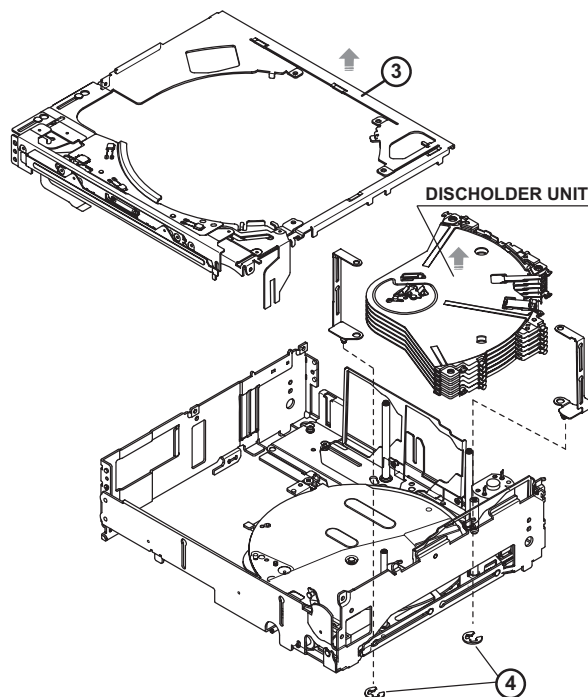


### How to remove "DISCHOLDER UNIT"

1. Remove eight screws.
2. Remove the FPC.



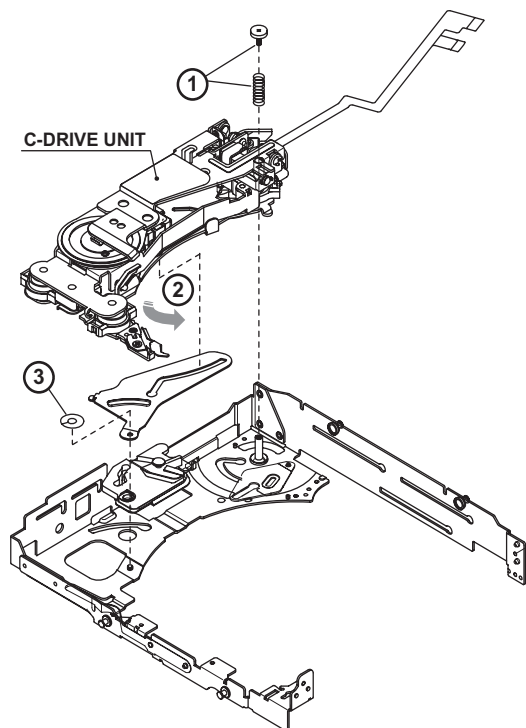
3. Remove UPPER UNIT ASSY.
4. Remove two C-RINGS, and remove DISCHOLDER UNIT.





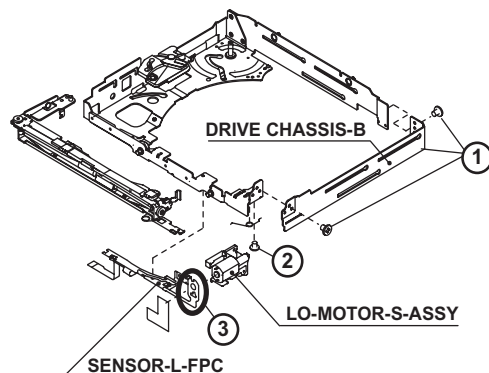
### How to remove "C-DRIVE UNIT"

1. Remove the screw and DRIVE SPRING-A.
2. Rotate C-DRIVE UNIT internally.
3. Remove the washer, and remove C-DRIVE UNIT.



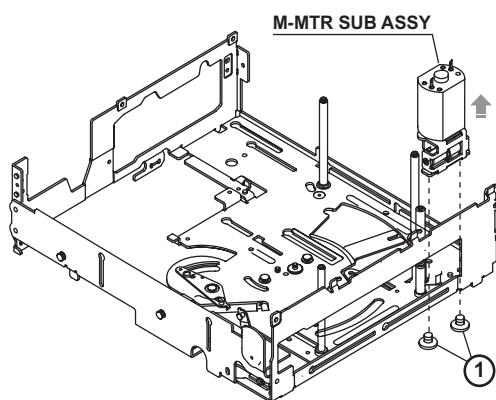
### How to remove "LO-MOTOR-S-ASSY"

1. Remove two screws and DRIVE CHASSIS-B.
2. Remove the screw of the bottom side.
3. Remove the solder of SENSOR-L-FPC, and remove LO-MOTOR-S-ASSY.



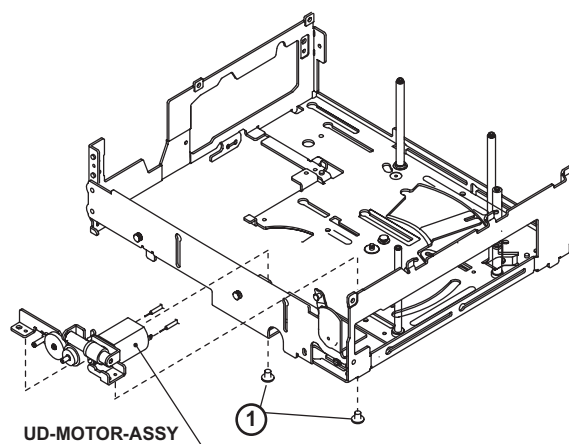
### How to remove "M-MTR SUB ASSY"

1. Remove two screws, and remove M-MTR SUB ASSY.

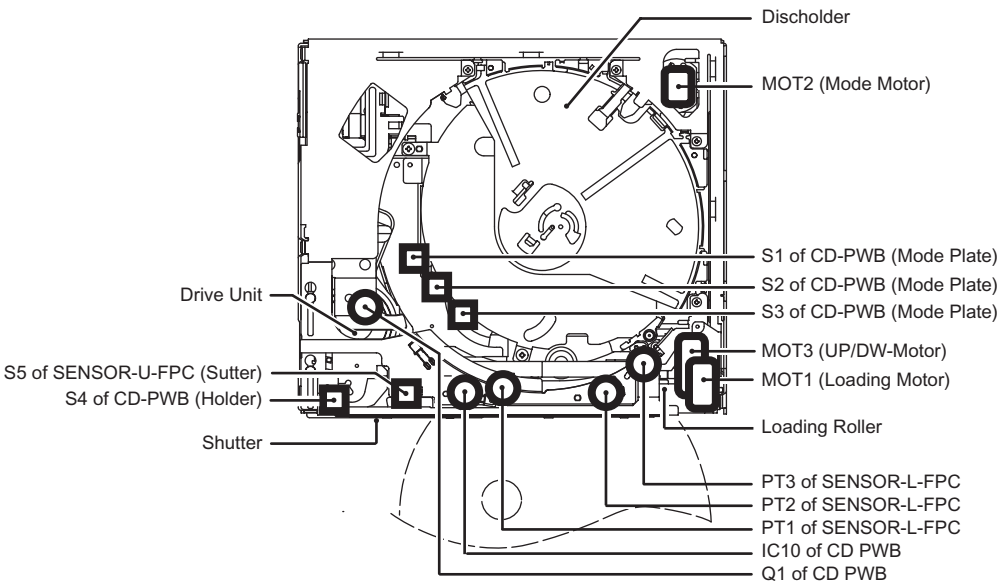


### How to remove "UD-MOTOR-ASSY"

1. Remove the screw of the bottom side, and remove UD-MOTOR-ASSY.



OPERATION



Function of Mechanism

- [DISC HOLDER]  
Six holders.  
(Related motor:UP/DW-Motor)
- [DRIVE UNIT]  
Chukking of a play disc.  
(Related Motor:Mode motor)
- [LOADING ROLLER]  
Disk is stored/ejected by rotation.  
(Related Motor:Laoding motor)
- [SHUTTER]  
Shutter at disc insertion.  
(Related Motor:Mode Motor)

Function of Motors

- [MOT1 LOADING MOTOR]  
Rotation of loading roller.  
(Related Sensor:PT1,2,3,Q1)
- [MOT2 MODE MOTOR]  
Rotation of mode plate.  
Chukking disc.  
Opening/closing holder.  
Movement of loading/ejecting roller.  
Opening/closing shutter.  
(Related Sensor:S1,2,3)
- [MOT3 UP/DW-MOTOR]  
Going up and down of disc holder.  
Selection of disc holder.  
(Related Sensor:S4,IC10)

Function of Switches

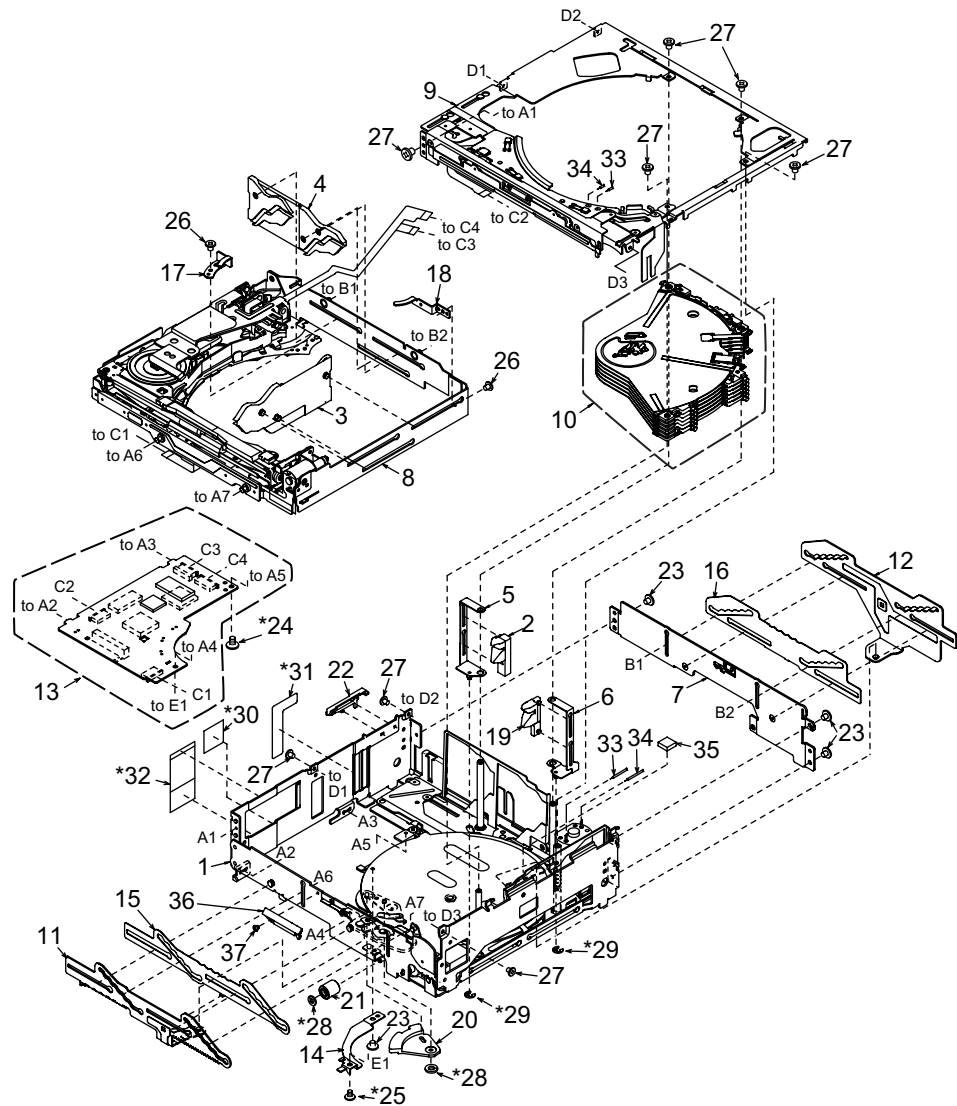
- [S1,2,3]  
Detect a home position of mode plate.  
Detect mode plate position by combination of on and off.
- [S4]  
Detection of initial position of holder.  
Initial position:S4-ON,IC10-bright.
- [S5]  
Opening/closing detection of shutter.  
OFF:Close, ON:Open

Function of Photo sensors

- [PT1]  
Detection of start loading and passing of disc.  
Bright:no DISC, Dark:DISC
- [PT2]  
Detection of finish eject and passing of disc.  
Bright:no DISC, Dark:DISC
- [PT3]  
Detection of store and passing of disc.  
Bright:no DISC, Dark:DISC
- [Q1]  
Detection of passing of disc.  
Bright:no DISC, Dark:DISC
- [IC10]  
Detection of holder position

# EXPLODED VIEW/PARTS LIST

## Main section

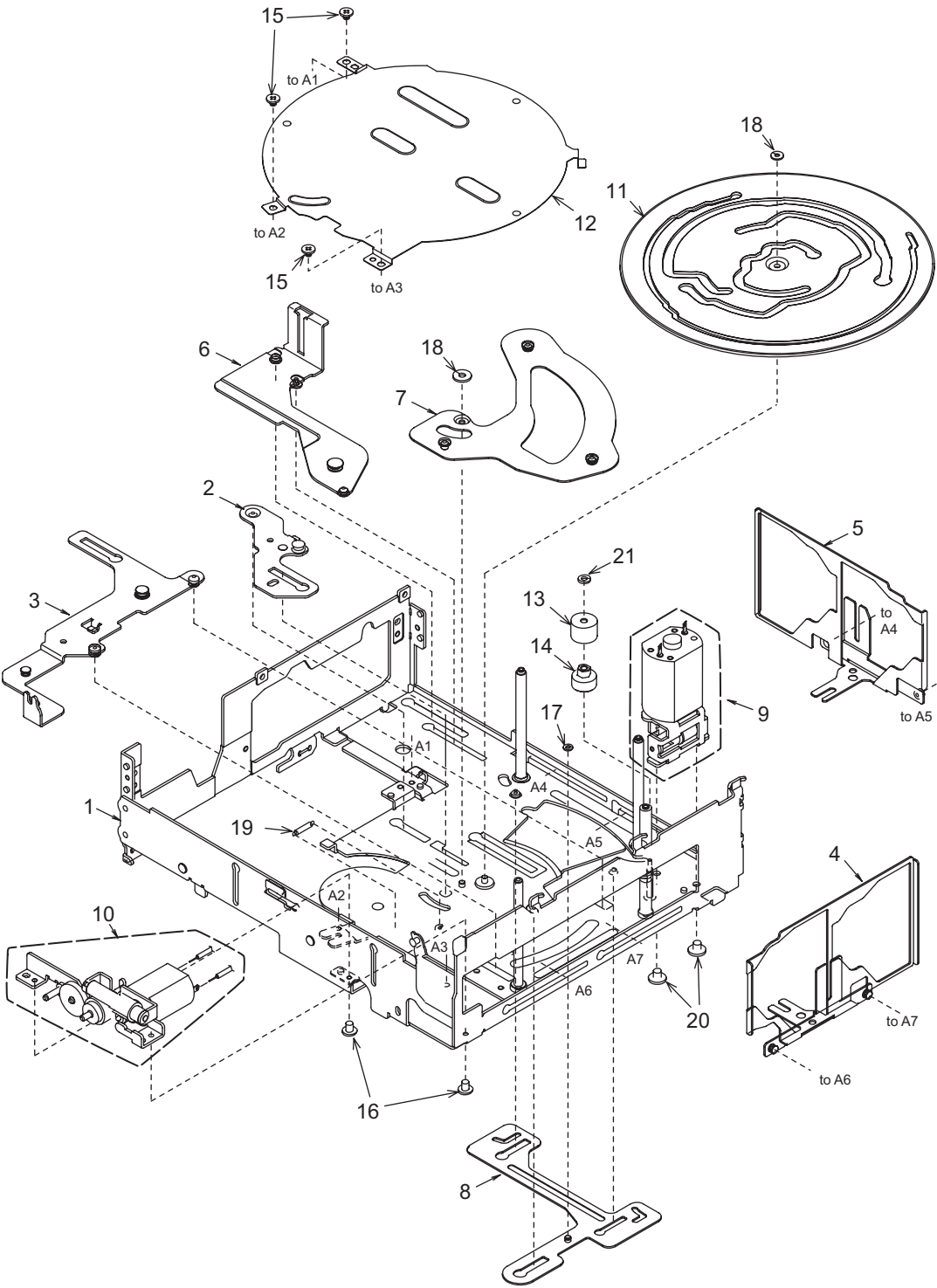


\* Do not reuse the following parts.

(No.24,25,28,29,30,31,32)

NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	HBS-585-200	LOWER UNIT ASSY	1	20	621-1636-24	SW LINK	1
2	966-0667-21	DISC STP-ASSY L	1	21	621-1765-20	UD-GEAR-D	1
3	HBS-584-100	DH-SEL-ASSY S	1	22	621-1715-20	FPC-STOPPER	1
4	HBS-583-100	DH-SEL-ASSY R	1	23	716-1850-01	SCREW (M2.0x2.0)	4
5	966-0670-22	DS-SP-ASSY L	1	24	716-3629-00	SCREW (M2.0x2.5)	1
6	966-0671-23	DS-SP-ASSY R	1	25	716-1851-02	SCREW (M2.0x3.0)	1
7	966-0672-21	REAR-P-ASSY	1	26	716-3450-00	SCREW (M1.7x2.0)	2
8	966-1871-20	N-DRIVE-CH UNIT	1	27	716-3451-01	SCREW (M1.7x2.5)	8
9	966-1764-21	UPPRR UNIT ASSY	1	28	746-0761-00	WASHER	2
10	HBS-566-300	DISCHOLDER UNIT	1	29	744-0045-01	C-RING	2
11	966-1771-21	SLIDE-P-ASSY F	1	30	347-7271-00	FPC SHEET	1
12	966-0709-21	SLIDE-P-ASSY R	1	31	347-7275-00	PROTECT SHEET	1
13	HBS-605-100	CD-PWB-ASSY	1	32	347-7276-00	FPC-SHEET C	1
14	620-1640-20	SW-H-PLATE	1	33	800-4921-60	VINYL-COAT WIRE	1
15	620-1778-20	GAP PLATE F	1	34	802-4921-60	VINYL-COAT WIRE	1
16	620-1662-21	GAP PLATE R	1	35	345-5824-00	RUBBER PART	1
17	620-1685-21	DS-PLATE L	1	36	621-1763-20	LOADING GUIDE B	1
18	620-1686-20	DS-PLATE R	1	37	716-1859-01	SCREW (M1.7x2.0)	1
19	621-1634-23	DISC STOPPER R	1				

Lower unit assy section











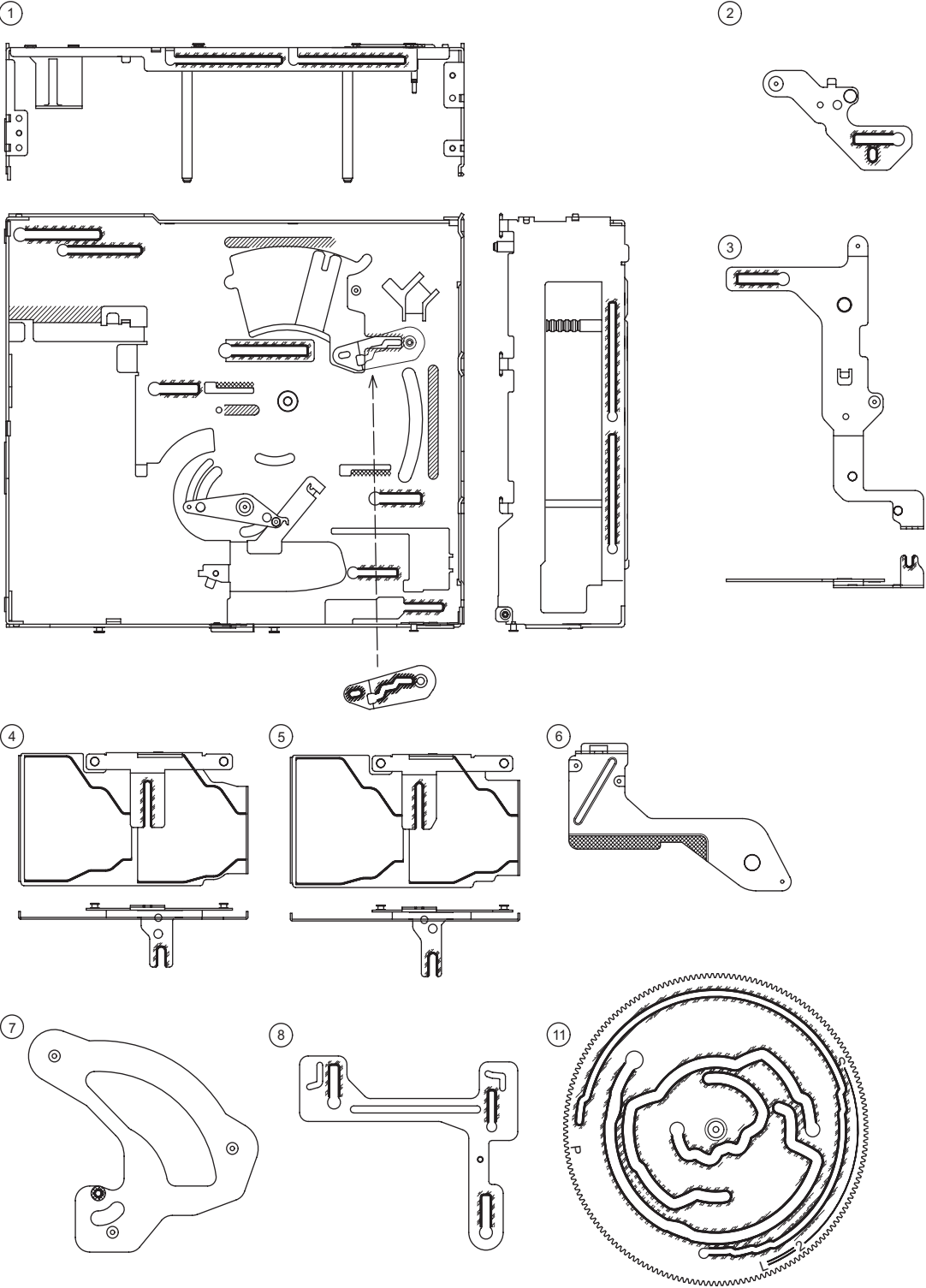
NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1757-25	LOWER-C-ASSY	1
2	966-0658-22	DH-SP-ASSY A	1
3	966-1758-20	DS-SP-ASSY A	1
4	966-1808-20	DH-SP-ASSY S	1
5	966-1809-20	DH-SP-ASSY R	1
6	966-0677-23	D-SHT PL-B-ASSY	1
7	966-0659-22	DH-SP-ASSY B	1
8	966-0666-22	DS-SP-ASSY B	1
9	HBS-546-100	M-MTR SUB ASSY	1
10	HBS-568-100	UD-MOTOR-ASSY	1
11	620-1623-24	CAM GEAR	1

NO.	PART NO.	DESCRIPTION	Q'TY
12	620-1624-24	GEAR COVER	1
13	621-0732-21	M-GEAR B	1
14	621-0733-20	M-GEAR C	1
15	716-1850-01	SCREW(M2.0x2.0)	3
16	716-3451-01	SCREW(M1.7x2.5)	2
17	746-0761-00	WASHER	1
18	746-0768-00	WASHER	2
19	750-6756-20	SW-L-SPRING	1
20	716-1851-03	SCREW(M2.0x3.0)	2
21	746-0941-00	WASHER	1

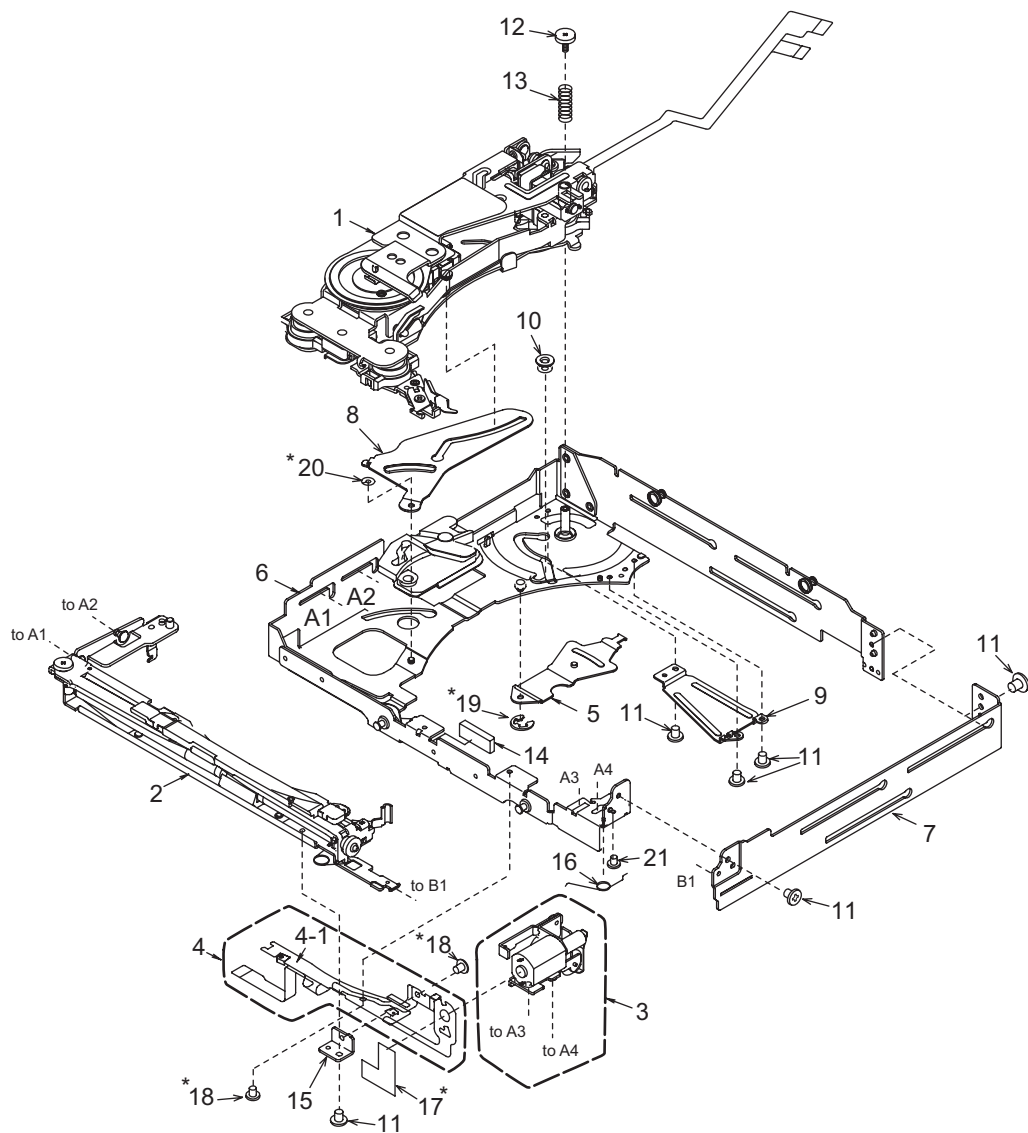
[Grease Point]

\* Grease : SANKOL FG-87HSR

	Put grease on the surface	
	Put grease on the reverse side	
	Put grease on the both sides	
	Put grease on the edge	



N-Drive-CH unit section



\* Do not reuse the following parts. (No.17,18,19,20)

NO.	PART NO.	DESCRIPTION	Q'TY
1	HBS-604-100	N-DRIVE UNIT	1
2	HBS-567-200	LOADING-U-ASSY	1
3	HBS-556-100	LO-MOTOR-S-ASSY	1
4	HBS-552-200	L-SENSOR-S-ASSY	1
4-1	-----	SENSOR-L-FPC	1
5	966-0676-21	D-SHT LK-A-ASSY	1
6	966-1755-22	DRIVE-CH A ASSY	1
7	620-1681-21	DRIVE CHASSIS B	1
8	620-1672-21	DR-SUPPORT-PL	1
9	620-1680-20	D-SHIFT COVER	1
10	622-1743-21	D-SHIFT ROLLER B	1









NO.	PART NO.	DESCRIPTION	Q'TY
11	716-3450-00	SCREW(M1.7x2.0)	6
12	716-3459-01	SCREW(M1.7x2.0)	1
13	750-6761-20	DRIVE SPRING A	1
14	345-5868-01	RUBBER PART	1
15	620-1651-21	S-PWB-PLATE	1
16	750-6754-20	LO-ES-SPRING B	1
17	345-5424-01	SEN-FPC GUIDE	1
18	716-1859-01	SCREW(M1.7x2.0)	2
19	744-0039-00	E-RING	1
20	746-0870-00	WASHER	1

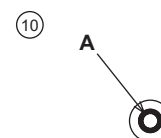
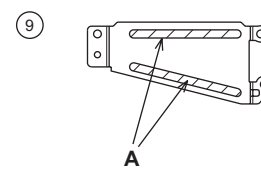
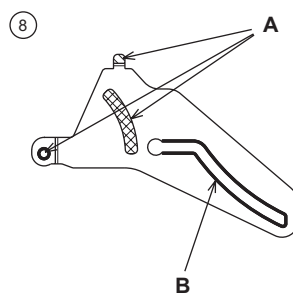
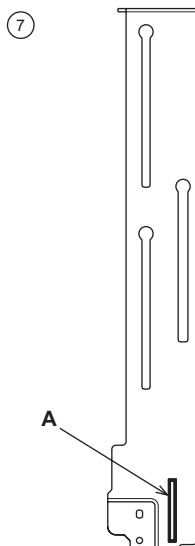
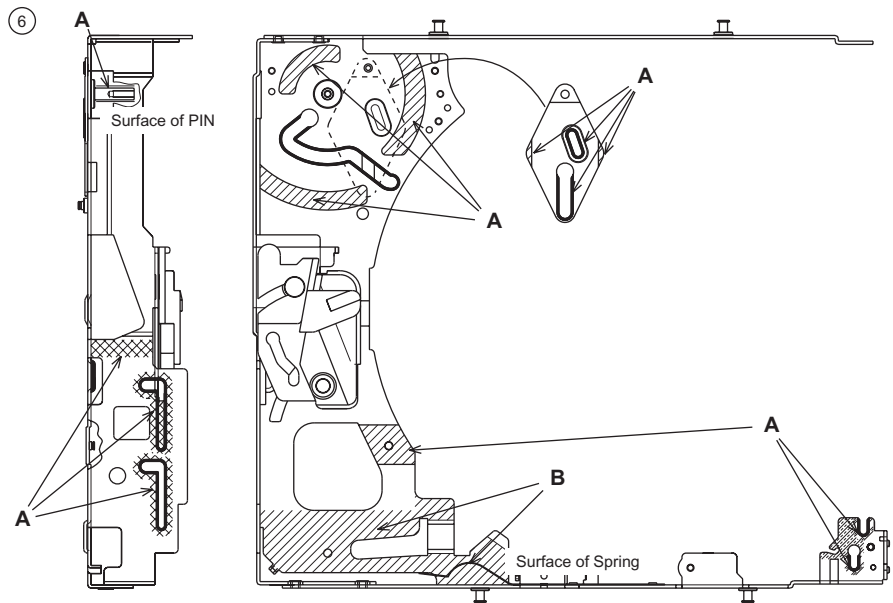
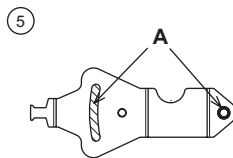
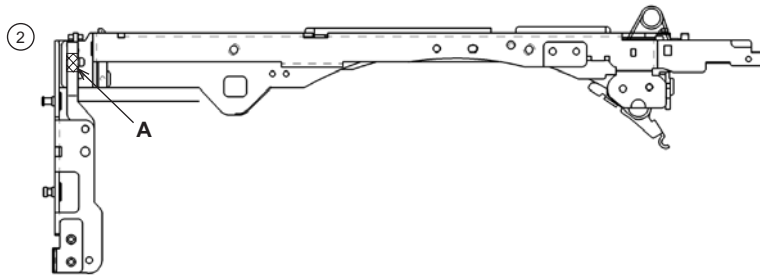
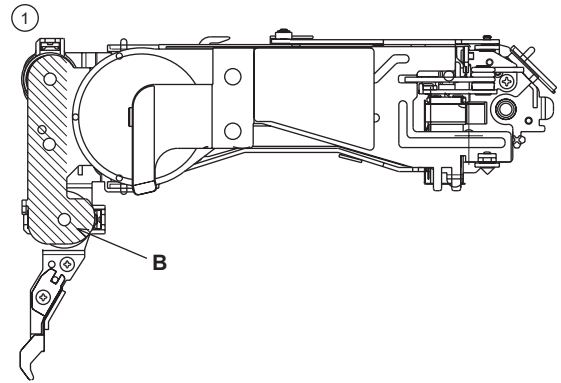


## [Grease Point]

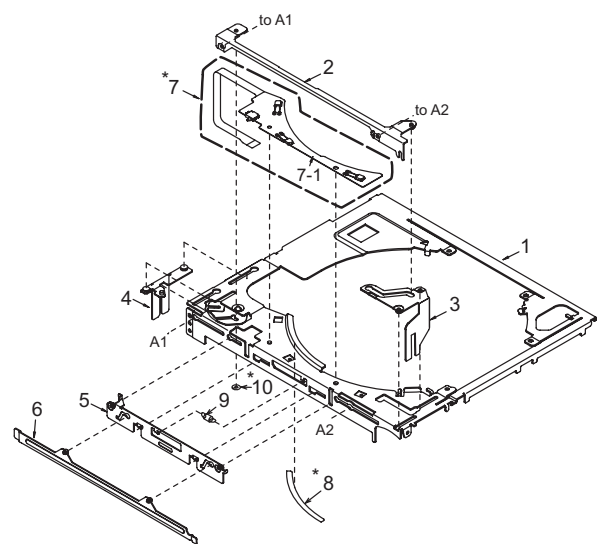
\* Grease A : SANKOL FG-87HSR

\* Grease B : SANKOL CFD-006MBL

	Put grease on the surface	
	Put grease on the reverse side	
	Put grease on the both sides	
	Put grease on the edge	



Upper unit assy section



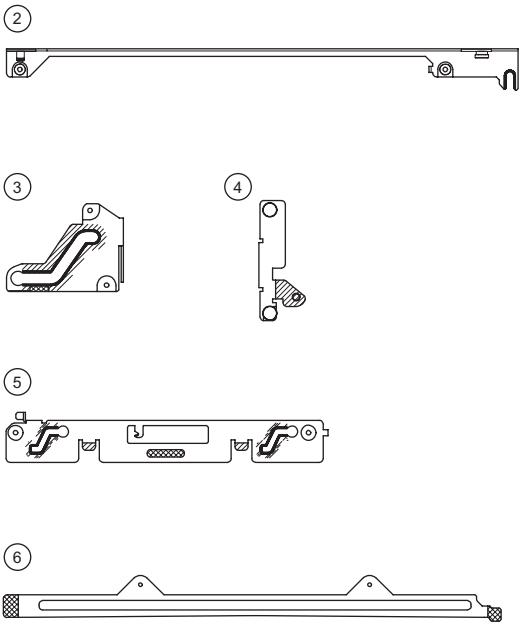
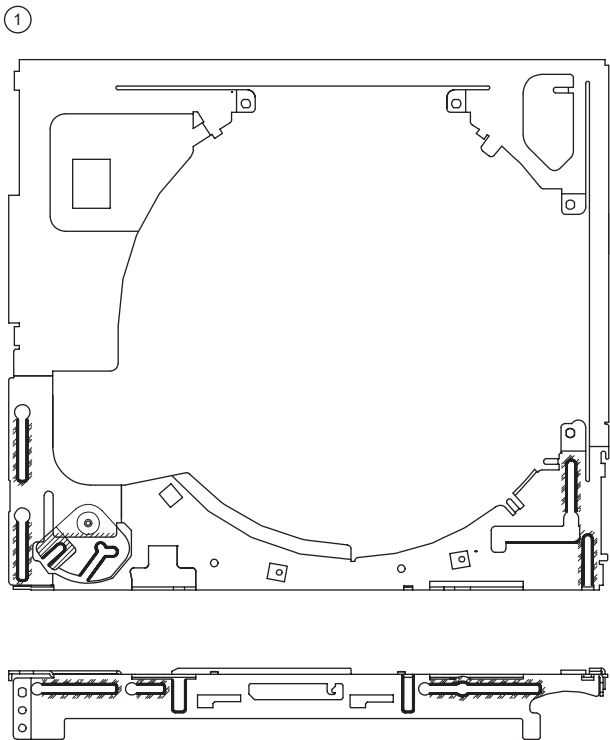
\* Do not reuse the following parts. (No.7,8,10)

NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1761-21	UPPER-CHA-ASSY	1
2	966-1765-20	LO-SHIFT A ASSY	1
3	966-0700-22	LO-SHIFT B ASSY	1
4	966-0701-21	LO-SHIFT ASSY	1
5	966-1766-20	SHUTTER-PL-ASSY	1
6	966-1763-20	SHUTTER ASSY	1
7	HBS-553-200	U-SENSOR-S-ASSY	1
7-1	-----	SENSOR-U-FPC	1
8	347-7272-00	RATTLE SHEET	1
9	750-6755-21	SHUTTER SPRING	1
10	746-0870-00	WASHER	1

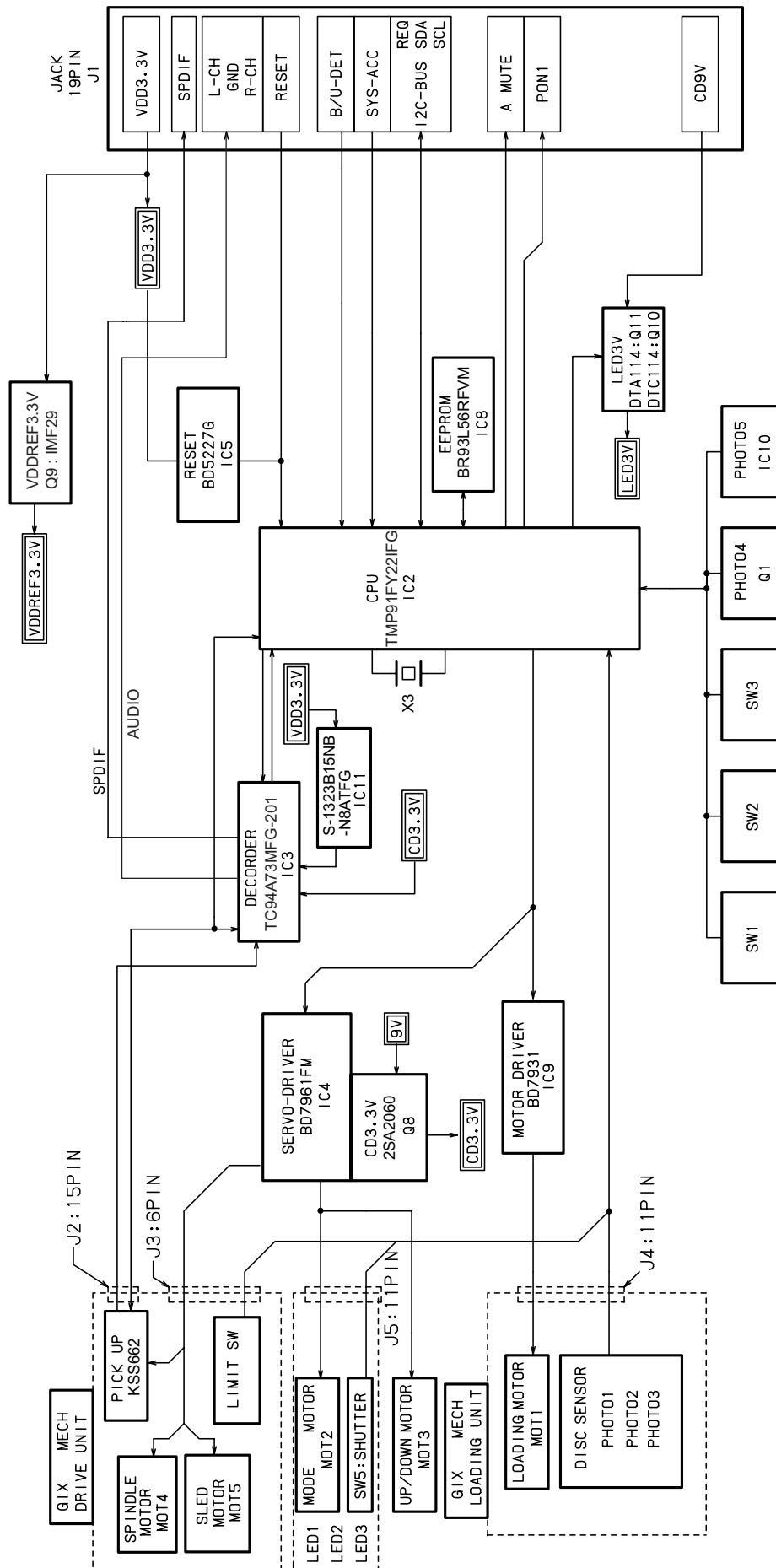
[Grease Point]

\* Grease : SANKOL FG-87HSR

	Put grease on the surface	
	Put grease on the reverse side	
	Put grease on the both sides	
	Put grease on the edge	



## BLOCK DIAGRAM



# ELECTRICAL PARTS LIST

## CD PWB(BM1) section

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C1	168-1052-78	1uF	C75	168-1042-78	16V 0.1uF	R17	119-1041-15	1/10W 100k ohm
C3	168-1042-78	16V 0.1uF	C76	168-5622-55	5600pF K	R18	119-1041-15	1/10W 100k ohm
C4	043-0559-90	6.3V 22uF	C77	168-1032-55	0.01uF K	R19	119-1041-15	1/10W 100k ohm
C5	168-1032-55	0.01uF K	C79	166-1501-50	15pF CH	R20	119-1041-15	1/10W 100k ohm
C6	042-1702-90	6.3V 100uF	C80	166-1501-50	15pF CH	R21	119-2221-15	1/10W 2.2k ohm
C7	168-1052-78	1uF	C101	043-0563-90	16V 47uF	R22	119-4711-15	1/10W 470 ohm
C9	168-1052-78	1uF	CCT1	050-0145-59	1/16W 22 ohm x4	R23	119-1051-15	1/10W 1M ohm
C11	168-1052-78	1uF	CCT2	050-0145-54	1/16W 47k ohm x4	R24	119-2211-15	1/10W 220 ohm
C12	042-0671-01	10V 47uF TA	CCT3	050-0145-54	1/16W 47k ohm x4	R25	119-2211-15	1/10W 220 ohm
C13	168-1052-78	1uF	CCT4	050-0145-55	1/16W 10k ohm x4	R26	119-1041-15	1/10W 100k ohm
C14	168-1042-78	16V 0.1uF	CCT5	050-0140-55	1/32W 2.2k ohmx4J	R27	119-1051-15	1/10W 1M ohm
C15	168-1052-78	1uF	D1	001-4301-14	HZU 3.0B1	R28	119-1041-15	1/10W 100k ohm
C16	043-0559-90	6.3V 22uF	D2	001-0367-91	1SS226	R29	119-1041-15	1/10W 100k ohm
C17	168-1032-55	0.01uF K	D3	001-4301-16	HZU 3.3B1	R30	119-4701-15	1/10W 47 ohm
C18	168-1052-78	1uF	D4	001-4301-18	HZU 3.6B1	R31	119-2201-15	1/10W 22 ohm
C19	043-0559-90	6.3V 22uF	D5	001-2612-90	RB520S-30	R32	119-1051-15	1/10W 1M ohm
C20	168-1042-78	16V 0.1uF	D6	001-2612-90	RB520S-30	R33	119-2211-15	1/10W 220 ohm
C21	168-1032-55	0.01uF K	D7	001-9210-50	AVR-	R35	119-1051-15	1/10W 1M ohm
C23	043-0559-90	6.3V 22uF			M1608C270MTAAD	R36	119-4721-15	1/10W 4.7k ohm
C24	043-0559-90	6.3V 22uF	D8	001-9210-50	AVR-	R37	119-4731-15	1/10W 47k ohm
C25	168-4732-78	0.047uF K			M1608C270MTAAD	R38	119-2231-15	1/10W 22k ohm
C26	166-4711-50	470pF CH	IC2	052-5071-30	TMP91FY22IFG-6R96	R39	119-1041-15	1/10W 100k ohm
C28	168-4732-78	0.047uF K				R40	119-4721-15	1/10W 4.7k ohm
C29	166-4711-50	470pF CH	IC3	051-6733-00	TC94A73MFG-201	R41	119-4731-15	1/10W 47k ohm
C30	166-1007-50	10pF CH	IC4	051-6060-08	BD7961FM-E2	R43	119-4731-15	1/10W 47k ohm
C31	166-1007-50	10pF CH	IC5	051-5445-08	BD5227G-TR	R44	119-2201-15	1/10W 22 ohm
C32	168-1042-78	16V 0.1uF	IC8	051-9402-78	BR93L56RFVM-W	R45	119-1511-15	1/10W 150 ohm
C33	168-2222-55	2200pF K	IC9	051-6072-08	BD7931FE2	R46	119-4721-15	1/10W 4.7k ohm
C34	168-1042-78	16V 0.1uF	IC10	051-5833-00	GP1S093HCZ	R48	119-1041-15	1/10W 100k ohm
C35	168-1042-78	16V 0.1uF	IC11	051-3392-90	S-1323B15NB-N8ATFG	R49	119-0000-05	1/10W 0 ohm JW
C36	168-1042-78	16V 0.1uF				R50	119-2211-15	1/10W 220 ohm
C37	168-6822-55	6800pF K	J1	074-1237-69	19PIN	R51	119-0000-05	1/10W 0 ohm JW
C39	168-1042-78	16V 0.1uF	J2	074-1201-65	15P	R52	119-1041-15	1/10W 100k ohm
C40	168-3332-78	0.033uF K	J3	074-1138-56	6P	R53	119-5621-15	1/10W 5.6k ohm
C41	168-1042-78	16V 0.1uF	J4	074-1100-61	SOCKET 11P	R55	119-3341-15	1/10W 330k ohm
C42	168-1042-78	16V 0.1uF	J5	074-1201-61	11P SOCKET	R56	119-4731-15	1/10W 47k ohm
C43	168-1042-78	16V 0.1uF	Q1	060-0252-01	PT4850F	R57	119-2231-15	1/10W 22k ohm
C45	168-1042-78	16V 0.1uF	Q2	125-0021-91	DTA114EUA	R58	119-0000-05	1/10W 0 ohm JW
C46	168-1042-78	16V 0.1uF	Q3	198-3018-00	2SK3018	R59	119-1511-15	1/10W 150 ohm
C48	168-1042-78	16V 0.1uF	Q4	190-2060-00	2SA2060	R60	119-4731-15	1/10W 47k ohm
C49	168-1042-78	16V 0.1uF	Q8	190-2060-00	2SA2060	R61	119-1041-15	1/10W 100k ohm
C50	168-1042-78	16V 0.1uF	Q9	125-9026-90	IMF29	R62	119-1041-15	1/10W 100k ohm
C51	168-1042-78	16V 0.1uF	Q10	125-2027-91	DTC114EUA	R63	119-1041-15	1/10W 100k ohm
C52	168-5622-55	5600pF K	Q11	125-0021-91	DTA114EUA	R64	119-1011-15	1/10W 100 ohm
C53	168-1042-78	16V 0.1uF	Q12	125-2027-91	DTC114EUA	R65	119-1041-15	1/10W 100k ohm
C54	166-6801-50	68pF CH	Q13	125-9026-90	IMF29	R66	117-5611-15	1/8W 560 ohm
C55	168-1532-55	0.015uF K	R1	119-6811-15	1/10W 680 ohm	R67	117-7511-15	1/8W 750 ohm
C56	168-1042-78	16V 0.1uF	R2	119-6811-15	1/10W 680 ohm	R68	117-7511-15	1/8W 750 ohm
C57	168-1032-55	0.01uF K	R3	032-0163-91	1/2W 10 ohm	R69	119-1041-15	1/10W 100k ohm
C58	168-1042-78	16V 0.1uF	R4	032-0163-91	1/2W 10 ohm	R81	116-1591-15	1/4W 1.5 ohm
C59	168-1042-78	16V 0.1uF	R5	119-2231-15	1/10W 22k ohm	R211	119-1041-15	1/10W 100k ohm
C60	168-1522-55	1500pF K	R6	116-1001-15	1/4W 10 ohm	R212	119-1041-15	1/10W 100k ohm
C61	168-3322-55	3300pF K	R7	119-1021-15	1/10W 1k ohm	S1	013-7416-50	SW SPVL110200
C62	168-1032-55	0.01uF K	R8	116-1591-15	1/4W 1.5 ohm	S2	013-7416-50	SW SPVL110200
C64	168-1042-78	16V 0.1uF	R9	119-2231-15	1/10W 22k ohm	S3	013-7416-50	SW SPVL110200
C65	168-1032-55	0.01uF K	R10	119-4711-15	1/10W 470 ohm	S4	013-7415-50	SPVG110400
C67	168-1032-55	0.01uF K	R11	119-2211-15	1/10W 220 ohm	X1	061-3534-90	16.92MHz
C69	168-1532-55	0.015uF K	R12	119-6811-15	1/10W 680 ohm	X3	060-1545-90	20MHz
C70	166-4701-50	47pF CH	R13	119-1011-15	1/10W 100 ohm	PWB	039-3083-21	PWB(WITHOUT COMPONENT)
C71	168-1042-78	16V 0.1uF	R14	119-2231-15	1/10W 22k ohm			
C72	168-1042-78	16V 0.1uF	R15	119-8231-15	1/10W 82k ohm			
C74	166-6097-50	6pF CH	R16	119-1041-15	1/10W 100k ohm			

## Sensor-L-PFC(BM2) section

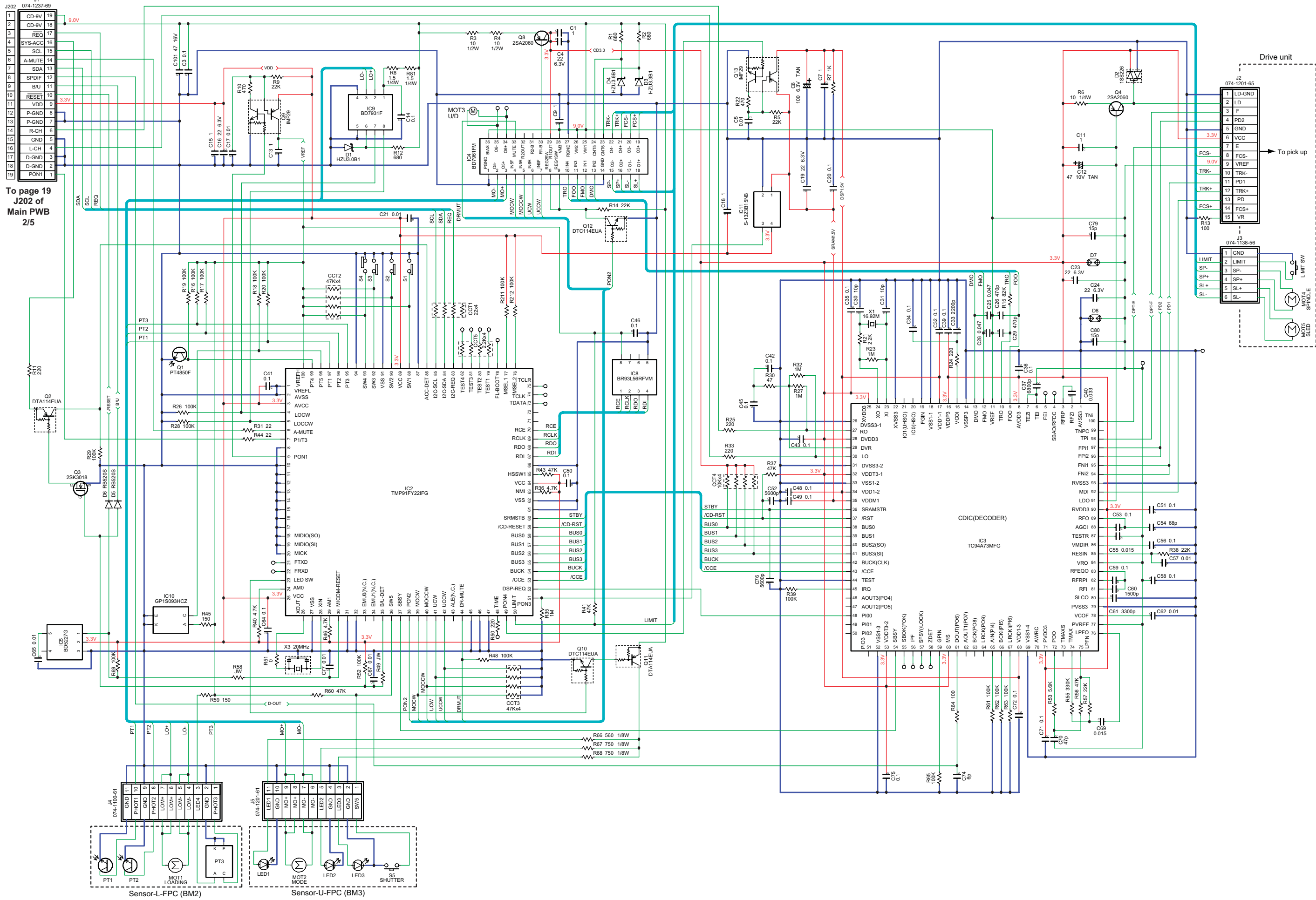
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
PT1	060-0252-01	PT14850F	PT3	051-5833-00	GP1S093HCZ	PWB	039-2467-21	PWB(WITHOUT COMPONENTS)
PT2	060-0252-01	PT14850F						

## Sensor-U-PFC(BM3) section

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
LED1	001-7077-00	GL4804	LED3	001-7077-00	GL4804	PWB	039-2466-20	PWB(WITHOUT COMPONENTS)
LED2	001-7077-00	GL4804	S5	013-7417-50	ABC1122P161			

CIRCUIT DIAGRAM

CD PWB(BM1) / Sensor-L-FPC(BM2) / Sensor-U-FPC(BM3) section



## PRINTED WIRING BOARD

CD PWB(BM1) / Sensor-L-FPC(BM2) / Sensor-U-FPC(BM3) section

**Caution:**

COMPONENT SIDE:

Parts on the component side seen from the component side are indicated.

SOLDER SIDE:

Parts on the solder side seen from the solder side are indicated.

